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Sussex Pottery.

SO simple in its essentials is the craft of the worker in clay; so widely obtainable the requisite material; and so universally bestowed the tools, namely the hands, primarily needful for its manipulations, that it is scarcely remarkable that the art of the potter is the most ancient of all those industries, at once useful and ornamental, which the craft and subtlety of man has devised. As regards our own country, the degree of civilization to which the Britons had already attained at the period of Cæsar's invasion, would justify us in assuming that they were not behind kindred nations in their practice of the potter's craft. And since the provinces over against Gaul were the most advanced in arts and sciences, we may conclude that the district we now know as Sussex produced some proportion of the pottery which has been unearthed at various periods and localities in this country.

With the Romans, of course, came a far higher style of art and practice, and though much of the remains of their handiwork which has survived was of continental origin, the discovery of Roman and Romano-British kilns in divers places goes to show that some considerable quantity must have been made in this country. Every county museum contains specimens of such pottery, as well as of that of succeeding periods; and a small but choice

collection of the very characteristic ware of Sussex is now on view in the museum of the Sussex Archæological Society in Lewes Castle.

As with the country at large, there is scarcely a district in Sussex in which clay suitable for the purposes of the potter may not be found; and there is hardly a locality in which specimens of its ancient ceramic art have not been discovered, and those often of a superior kind.



Fig. 1A.—Romano-British urn found near Worthing.

Some sixty years ago, a discovery was made near Worthing, of more than a score of Roman urns and funeral vessels of common shape and material, and a few pieces of Samian ware, together with a small slate-coloured urn, $3\frac{1}{2}$ ins. high, beautifully decorated with a hunting scene in high relief.

In the neighbourhood, too, of Lewes, a very perfect specimen of a small Roman vase, doubtless of local manufacture, has been found at Ringmer.

Pottery which is definitely Saxon in origin is of some

rarity in Sussex. The Norman (or early mediæval) period is represented by some curious pieces; one formed in the shape of a stag, another, an equestrian figure. The former was found at Seaford, the latter at Lewes; and both, in spite of their somewhat bizarre form, were intended for use as liquor-holding vessels. They are made of a coarse clay, and glazed a greenish colour. Of approximately the same date were probably a number of green-glazed pitchers and jugs found at Horsham about thirty years ago, all very similar to

each other in shape and colour, having their surface raised with transverse lines. The later mediæval period must have been one in which the potters were very active, for great quantities of their wares, whole or fragmentary, are frequently found all over the country. We have one instance of this in the unearthing, about five or six years ago, of some ancient kilns at Ringmer, near Lewes, which, if we may judge from the great quantities of fragments found, must have done quite a large trade, not only in bricks and tiles, but also in pottery, exemplified by pots, jugs, and other domestic articles. Some of these fragments show attempts at imparting a more than usual ornamental character to the work, such as jugs moulded into various shapes, some of a comic nature.

This pottery is of considerable antiquity; its potters being mentioned in various ancient documents, such as court-rolls and wills; and it appears to have been worked, with various periods of suspension, until the end of the sixteenth century. A possible reference to it occurs in a will, dated 1588,

of a certain Thomas Hooke, of Ringmer, who postscripts that "William Bynge the brickmaker" owes him *iii*s; while Thomas Shepperd, of the same place, in his will, dated 1594, makes a similar statement about "Saunder the bryckmaker."

Possibly we have a still later record in the words "Mary Cruse made me begorr 1791," inscribed on the under surface of a ridge tile removed from the end of Ringmer church some years ago.

The earliest record of the ancient potters of Ringmer which I



Fig. 1B.—Romano-British urn found near Worthing.

have found, occurs in a court-roll of the time of Edward the third, wherein there is entered the receipt of iv^s vi^d "de consuetudine vi

figulorum apud Ryngmere"; while another roll of 1378 records the amounts paid, namely, ii^s iii^d, by three potters, "for licence from the lord to dig clay in the common." Besides the money rent the rolls record that each paid 100 eggs at Easter and a hen at Christmas.

In 1517, this little colony of potters appears to have been involved in one of those periodic epidemics which wrought so much havoc with human life in mediæval times, for a court roll of that date records that nothing had been received from the five potters of Ringmer, "because they are dead and no one fills their place" (eo quod mortui loco eorum).

sunt . . . et nullus eo occupat

Having adduced these entries as throwing some light upon the potter's craft in one parish in Sussex in mediæval times, and returning now to the county at large, we find at the Renaissance the art of the worker in clay directed in one particular channel, opened to it by the great impetus which the increase and dissemination of wealth gave to the use of bricks in the erection of the houses of the great. For the artistic potentialities of brick soon became evident, and some of the dwellings erected about that period afford some pleasing instances of decorative brickwork.

At Laughton, for instance, Sir W. Pelham built for himself a semi-castellated mansion, and the Sussex potters exhibited their



Fig. 2.—Roman urn found near Ringmer.



Fig. 3.—Fragment of a mediæval jug found at the old kilns, Ringmer.

skill in the beautiful brick mouldings and mullions of the windows, and in the artistic use of the Pelham badge—the buckle.

Elizabethan times are represented by numbers of such domestic articles as ale-pots, and particularly by those jugs of varying size but great similarity of shape, called Bellarmine, or grey-beards. Although a large number of these were made on the Continent, there is no doubt that some proportion were made in England. The Stuart and Georgian periods afford specimens of the potter's art, chiefly in vessels of the type of Fulham pots—a strong grey ware ornamented with bold blue patterns, sometimes having a central medallion produced from a stamp. It is doubtful, however, whether any of these, although found hereabouts, were made in Sussex.



Fig. 4.—Bowl made at Chailey, Sussex, in 1792.

Coming to the pottery of more modern times, and in particular to the ware which represents the acme to which the Sussex potter has attained, we see from the specimens now on view in Lewes Castle that it is of a very characteristic nature. It is of two main descriptions; a dark rich brown-coloured pottery, mottled and streaked with a darker tint, called "tortoiseshell" ware; and a highly-glazed, rich burnt-sienna coloured ware, with decorations in yellow clay artistically impressed into the body in patterns of great delicacy. The two potteries mainly represented here are those of Chailey, in Central Sussex, and Iden, near Rye, in the east of the county. From Chailey pottery came the two fine punch-bowls, lent by Sir William Grantham. The most artistic of these is of the bright-coloured ware, 6 ins. high, and 3 ft. 7 ins. in circumference. It is decorated in yellow with festoons of small circles and crosses, from the loopings-up of which depend conventionally rendered thistles. Around the rim runs the festive inscription—"Fill your

glasses, lads and lasses, round the maypole frisk and play, smiling glancing singing dancing, this is cupid's holiday. Tho' Alchorn Chailey South Common Lewes Sussex 1792." On the rim of the foot were initials (G. Y. E.) and a number of circles with double-lined-centres, between which is the word "Warwick." In the centre of the bowl is a large eight-rayed star, and in a circle runs the inscription, "Guy Earle of Warwick March the 5, 1792."

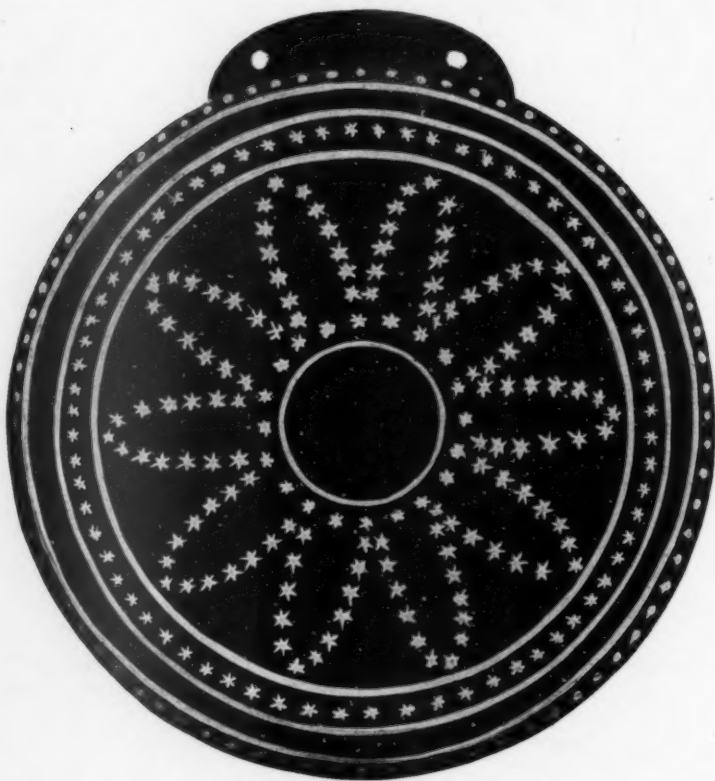


Fig. 5.—Spirit-flask, made at Eastbourne, in 1791.

The other bowl, of larger size and somewhat similar decoration, is inscribed, "Tho' Franci's jeres we value not we will try to make a chimney pot my myster found me just and trew and why not me as well as you tho^d we at Chaily are but mean we do the thing thats neat and clean." The foot bears the inscription, "Made by Robt. Burstow Chaily South Common 1791." These bowls, with

their ample dimensions, are not the only articles of the Sussex potter's craft which confirm the dictum of the old dramatist that our forefathers were "potent at potting"; for there are a number of spirit-flasks, of no mean capacities, represented in this collection. Most of them are in the shape of huge flat watches, ornamented in the yellow clay, with dialling on one side, on the other with the owner's or maker's name and place of abode or manufacture. The best of these is one lent by Mr. D. Moore. It is of rather larger capacity than the others and is without the usual dialling, but it is well decorated with a pattern, the outlines of which are formed some of dark coloured stars, the others of yellow. This flask is also the oldest in the collection, bearing the date 1791 in a central circle, together with the initials W. C. It was probably made near Eastbourne.

Another article, a churn-shaped pot, is inscribed "Jane Butler Sedlescombe Sussex 1815" on a central band of brown, with yellow letters. Above and below this band the pot is covered with a cream-colour, and is encircled with dark lines.

Decorated in the same manner as the punch-bowls is a huge teapot, bearing on one side, in the midst of a pattern whose outlines are formed by stars, the hospitable invitation—

"Drink about friend and brother
When this is out whe'll have another."



Fig. 6.—Churn-shaped Butter or Jam-pot of Sussex ware.

Another teapot is of the dark tortoiseshell ware, and of a singular shape, being contracted in its upper third, as though divided into



Fig. 7.—Teapot of Sussex ware, made in 1806. 1 ft. 3 ins. high.
two compartments, an upper and a lower. There is also a large plain jug in the same dark ware.

Almost as dark as these tortoiseshell



Fig. 8.—Two-handled Cup of Sussex Ware, 4 ins. high.

of the burnt-sienna coloured ware, with wings and neck-ring of yellow slip.

pots is a little two-handled bowl or cup, ornamented with dots and a band of short vertical lines, and the large sprawling figures of the date 1721; all drawn in cream-coloured slip.

Quite a different object to these useful but ornamental articles of Sussex ware is the figure of a bird, boldly modelled to represent a wood-pigeon. It is

Another Sussex pottery which confers something of a distinctive nature upon its ceramics, is the Bellevue Pottery, Rye; its ware being generally of a fancy character. A very favourite article is a drinking vessel in the form of a pig, which when filled is stood on end, the head lifting off, and being used as a cup. Formerly used frequently at wedding feasts the guests were humorously invited to drink a "hogshead" of beer! These pigs often bore the motto (impressed into the ware, round the neck), "He won't be druv," a legend highly characteristic of the Sussex character.

Of the other Sussex potteries, that of Cadborough was established in 1807; its ware being hard and durable, and of a splashed or mottled appearance.



Fig. 9.—Figure of a wood-pigeon, of Sussex ware.
5¼ ins. high and 7¼ ins. long.

In the same case are some articles representative of modern Sussex ware from the Iden pottery; very verdant in colour, and naturalesque in treatment. As Disraeli, in his day, said of the occupants of the ministerial benches, "Like the flies in amber, one wonders how the Devil they got there." If they are here as an advertisement, let us hope they are made to pay for it. At least, they serve to enforce that saying of a certain wise man of old, who, recumbent and despondent beneath his gourd-tree, opined that "we are no better than our fathers"—at least, in our ceramic art.

W. HENEAGE LEGGE.

Roman Intrecci.

THESE is, perhaps, no more interesting class of objects for special study in Rome than the fragments of sculpture with interlaced patterns—*meandri*—to be found in many of the churches there; yet the subject seems to me to be one that meets with more or less neglect.

This neglect, however, cannot altogether be termed wilful, but is due to a certain extent to circumstance. Want of time is one reason for it, ignorance as to where they are to be found is another, and some uncertainty of nomenclature, which tends to make research difficult, may fairly be reckoned a third. The two first reasons are connected with each other: these fragments of sculpture are not obvious sights, and it is impossible during a short visit to spare the necessary time for hunting them out. Even during a long visit it is difficult to study them thoroughly, because in Rome there are so many conflicting interests to attract the attention and draw one aside from special work.

Confusion of nomenclature is certainly another element of difficulty. Some writers give to these fragments the title of Lombardic Byzantine work, others the title of Comacine work, or possibly use the two indiscriminately. The traditional name of the interlacings amongst the Italians themselves is Solomon's Knot; but even this title, though it is more truly suggestive of the origin and antiquity of the interlacings than the others, does not completely cover the subject, so that they have been obliged to distinguish the Byzantine knot, which is not continuous and has no spiritual meaning, by the name of *girogolo*.¹

Perhaps the best name to suit the purpose of this article is the simple Italian word *intreccio*—interlacing—as it may be given appropriately to all, whether they belong to the early centuries of Christianity or to the period when Byzantine influence was strong in Rome and decorators chiefly Byzantine, or to the period when Lombard architecture had established its supremacy not only in Northern Italy, but in Rome itself. It may also be applied alike to the sculpture that has a spiritual meaning and to the sculpture which is merely ornamental.

¹ See Leader Scott in *Cathedral Builders*.

It is necessary to a true understanding of the intrecci to know something of the sculptor-architects of Rome to whom, in the first instance, we owe them, and to understand a little of the constitution of their famous guild, the members of which, after the fall of the Empire and the Lombard conquest of Northern Italy, were distinguished by the titles of *Maestri Comacini* and *Liberi Muratori*. It is also necessary to bear in mind that during the many centuries covered by the story of this guild it was subject to three great architectural influences—Roman, Byzantine, and Lombard. Merzario, quoting Selvatico, says: "Noto che l'architettura, la quale tenne il e romano conguinte insicme, ma nell 800 mescolossi ad in altra, che prodotte in parte da quelle aveve nulla di meno in si medesimi elemento tanto originale da costituere un arte indipendente."

When Roman civilisation was overthrown in the fifth century by the inroads of the barbarians, the sculptor-architects and masons of Rome fled to Como, the last free spot to be found in Italy, the neighbourhood in which the legions of the Roman empire made their last and not least glorious stand: "la liberta romana lancia l'ultimo suo dardo, e trasse l'ultimo sospiro sul lago di Como propriamente sugli scogli dell Isola Comacina."¹

These Roman masons took with them the traditions and rules of their ancient guild and preserved them intact through long years of inaction. When civilisation began to tell on the Lombards and Christianity began to reform their minds, the sculptor-architects or free-masons of Rome once more found scope for their powers and became identified both with the place of their refuge and its conquerors. They were not indigenous to Como, but they thrived well in a district which had had its famous architects as far back as the days of Pliny.

It has been disputed whether the title *Maestri Comacini* is derived from the Isola Comacina or from a Latin word signifying stone-mason. Sturgis, in the *Dictionary of Architecture and Building*, is altogether in favour of the latter derivation.² If the derivation given by Sturgis is the true one, then we may justly give the name *Comacine* to all the intrecci; but if, on the other hand, we hold to the name being derived from the Isola Comacina, it can only be given to such of them as were executed after the Roman guild had

¹ Merzario, *I Maestri Comacini*.

² Pliny praises a local architect in a letter to a friend—"Merzario, Mutius, A.D. 88, Roman Lodge." Leader Scott.

The word *Comacinus* is from the same stem as *macio*, the common Latin word for stone-mason, with the addition of collective prefix, and may also be connected with current Byzantine word for practical architect *mechanicos*.—*Sturgis' Dictionary of Architecture*.

taken refuge in that neighbourhood. It must be remembered, however, that though we may reject the derivation of the name Maestri Comacini from the architects of Como, we cannot reject the historical fact that it was these men who kept alight the lamp of knowledge during the dark years of Barbarian supremacy.

The intrecci were not wrought by men working separately, but by members of a guild working collectively with a single aim. This guild, which was transmitted to the Longobardic Comacines through the early Christian colleges of Rome, was a very ancient—if not the most ancient—of all guilds, and some of its symbols are suggestive of Eastern origin. Merzario says: "Ci danno a vedere una continuazione delle eterie dei Greci, e dei Collegi dei Romani, indiciano i depositare dei precetti dell'arte antica, che insegnavasi a porte chiuse e propagavasi nella schola e nel laborium, ed il vincolo di solidarietà e di fraternità che fa comune, più che presso d'altri nei nostri vecchi artiste e operai laonde furono chiamati ugualmente maestri e fratelli Comacini."

It would be no easy task to follow the traditions of the guild to their source, for they open up a wide field for speculation: on the one hand, to trace the story of the Collegia of Rome, from which the guild sprang, and investigate the effect of Etruscan influence upon them; on the other, to ascertain how far it was affected by the influx of Greek artists, and to pursue, also, the train of thought suggested by two of its most famous symbols: the endless knot and the Lion of Judah. But such speculations are beyond the scope of the present article; it is enough for its purpose to know the main principles which guided the men who wrought the intrecci of Rome.

The guild was divided into three classes—novices, operators, and masters. All members were instructed in their duties to society and taught to direct every action to the glory of the Lord and His worship, to live faithful to God and the government, to lend themselves to the public good and fraternal charity. They were to communicate to each other ideas on architecture, building, stone-cutting, etc. They were teachers of religious truth as well as exponents of the beautiful; their sculpture was an eloquent part of a primitive language in religion and art: the smallest tracery had a meaning, every leaf spoke a mystic language of some great truth of religion.¹

The freemasons of our own day claim descent from the great Roman guild, and whether the completeness of their pedigree be allowed or not, it is impossible to see a symbol of it over one of the great schools founded by them for the education of the poor

¹ See *Cathedral Builders*.

and fatherless amongst the children of the fraternity without remembering that they uphold its ancient principles.

One, of the symbols most frequently found on the fragments of sculpture which remain to show the work of the guild in Rome

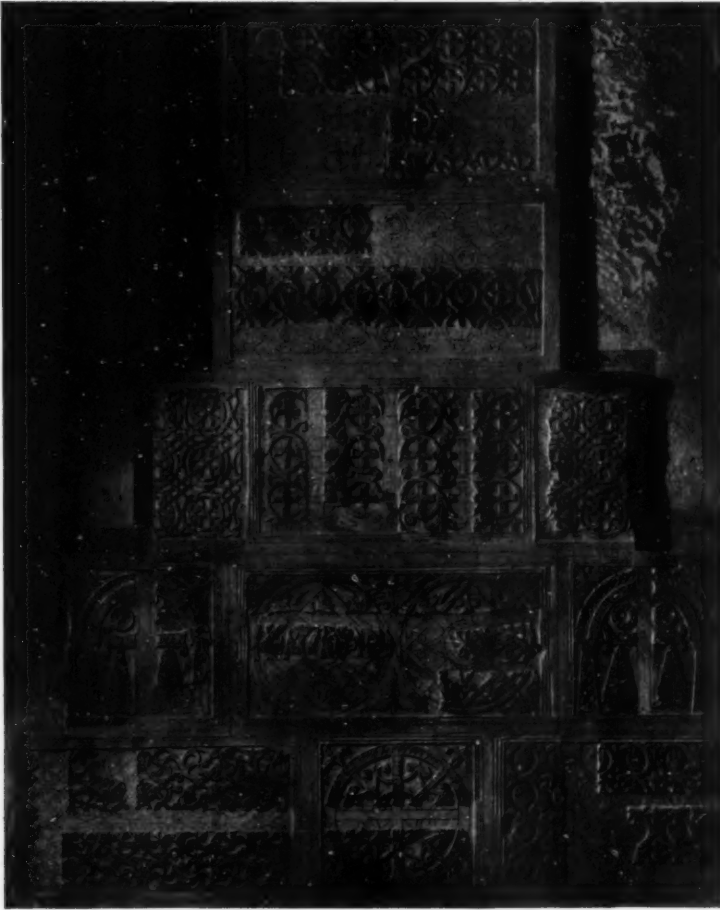


Fig. 1.—Fragments of Intrecci, shewing variety of symbols, from Sta Sabina.

is the endless knot, or Solomon's Knot: "that intricate and endless variety of the single, unbroken line of unity, emblem of the manifold ways of the one God Who has neither beginning nor end."² I

² Leader Scott's *Cathedral Builders*.

have been told that the sculptor masons made use of leather thongs twisted in and out as models for the wonderful interlaced patterns which they executed. Some of the symbols which occur frequently, as well as the endless knot, are of sufficiently easy interpretation, such as: the wheel circle, symbol of eternity; three circles interlaced, signifying Trinity in unity; the triangle, symbol of the Trinity; the banner, symbol of conquest; the rose, of silence; the lily, of purity; the heart, of truth and sincerity; the lion, strength and fortitude; the palm tree, victory—the palm was a pagan symbol signifying victory and justice adopted by the Christians,¹ who gave it additional meaning. The peacock and cock were emblems of the Resurrection; the latter also symbolical of vigilance. But to interpret this primitive language fully now would require special knowledge, though no doubt it taught its lesson plainly enough to the eyes of those for whom it was originally intended.

The intrecci of Rome fall naturally into two divisions, of which the ninth century forms the boundary line. In the ninth century the masons of Como, who were beginning at that date to find scope for their work outside the country in which their predecessors had taken refuge, came to Rome and built and restored certain churches there, which still remain connected with their name and retain their Lombard characteristics: Sta Maria in Cosmedin; Sta Prassede, Sta Saba, S. Lorenzo in Lucina, etc. The intrecci which were executed before the ninth century, some of them possibly at a very early date, must be put in the first division, and those which were executed after the ninth century must be put in the second.

But though, in studying the history of the guild, this division is obvious, it is by no means obvious when we come to the practical study of the intrecci themselves. The Maestri Comacini in their exile preserved faithfully the traditions and ideas of their Roman predecessors; therefore the same signs and symbols and designs appear both in the first and second period, and there could scarcely be a more difficult task set to the student than to fix the date of an intreccio if the latter be separated from any surroundings calculated to throw light upon the subject.² In all those churches which are definitely connected by history with Lombard building or restoration we may reasonably expect not only to find intrecci, but also to be able to guess their date with tolerable accuracy. But there are other churches with regard to which history is silent: churches which

¹ The peacock symbol of immortality was also a Pagan symbol.

² The following may be some help:—"During the fourth and fifth centuries they adhered closely to patterns which had been current in Rome, usually stiff geometrical designs in open work, following the technique of metal. Sixth and ninth centuries, new type of decoration, viz., designs in low relief, copied from contemporary textile patterns."—Lowrie, *Pictorial Art*.

do not possess a single Lombard characteristic—no airy campanile, such as those of Sta Maria in Cosmedin and Sta Agnese without the walls; no characteristic porch, such as in St. Clemente and Sta Prassede point direct to Lombard restoration, if not to Lombard origin; no arcade such as at Sta Saba catches at once the least experienced eye—yet which must not be passed over by those on the look-out for intrecci; but to find them needs patience and observation and more time than the visitor to Rome generally has to spare. It is reasonable to suppose that intrecci found in churches absolutely without Lombard characteristics may belong to the period previous to Lombard influence.

The intrecci are to be found in all kinds of unexpected places—in the vestibules of Renaissance churches, where, though overlooked by the careless or ignorant, they are apparent at once to the initiated eye; in those strange buried churches of Rome which one can only view by the wavering light of a guide's taper; scattered amongst pagan remains on the Palatine or in the Forum; on the door-posts of a commonplace house in a commonplace street; indoors and out of doors; in fact, one must be on the look-out for them everywhere.

An intreccio has intrinsic interest wherever found, and is worth studying even when totally separated from its original surroundings, but peculiar interest attaches to such intrecci as have been found in churches the construction and record of which is calculated to throw light upon their history. For instance, I saw a few fragments of knot work in the newly-discovered church of Sta Maria Antica under the Palatine. They were the merest fragments and similar in character to those to be seen elsewhere, but their position, even setting aside the interest attaching to everything found within the walls of a building, the resurrection of which, after its long burial, was one of the parting surprises of the nineteenth century, gave them a peculiar value. As Sta Maria Antica has been proved to be the fourth church in Rome in point of antiquity and has been curiously preserved from restoration, the date of anything found within its walls can be fixed with tolerable accuracy.

The intrecci of S. Clemente are of the highest importance because this church, being a fourth century foundation, ranks above even Sta Maria Antica in antiquity and retains to this day, in spite of the numerous restorations it has undergone, many of the characteristics of the early Christian Basilica. All who have visited this church since the excavations due to the energy of Prior Mullooly know that it consists of four distinct structures super-imposed on each other, but it is only to the two uppermost of these that it is necessary to refer now, viz., the Basilica built in the fourth century

and the Basilica built in the twelfth century. The latter church follows to a certain extent the lines of Lombard architecture, but exhibits also some of the characteristics of the early Christian Basilica over which it is built, in the atrium or courtyard which leads to the principal entrance and in the vestibule between this and the nave. Like Sta Maria Antica, it follows the use of the Greek Church in having a chapel on either side of the apse.¹ The beautiful pierced screen which divides the chancel from the choir in S. Clemente is wrought of a single strand interlaced so as to form a lattice work.² Its position in a church of which the history is sufficiently clear for it to be possible to fix its date with tolerable accuracy makes this intreccio, apart from its beauty, of the greatest importance. A fragment of the same pattern is to be seen on a slab in the vestibule of Sta Agnese without the walls. Sta Agnese, like St. Clemente, is a fourth century foundation. It was the custom with the Roman artists of the third and fourth centuries and the Comacine artists of the ninth century "to choose the parapet of the tribune in all the early Basilicas to set their mysterious signs upon and to mark their belief in God as shewing infinity in unity."³ But though the intreccio in St. Clemente occupies this traditional position, it is not *in situ*, for it originally belonged to the lower church, and is attributed to the sixth century. The ambos, and the marble railing that encloses the choir were also taken from the lower church, but bear marks of restoration. Nesbit says: "One of the most characteristic slabs is a panel in St. Clemente—the ornamentation is of a character transitional between classical and Byzantine. The monogram has been read Hadrianus, but this is clearly a mistake, as it evidently reads Johannus. Three popes of this name occur in the sixth century."⁴ In the vestibule of the lower church there are interesting fragments of intrecci which it is reasonable to suppose may be reckoned of early date. In its vestibule there is a mosaic in which a master mason is depicted overseeing and directing his men.⁵

The little church of the SS. Quattro Coronati, which stands on one of the spurs of the Cælian Hill, not very far from St. Clemente, is little known to the casual tourist, but is so specially connected with the story of the early Christian masons that it must in no wise

¹ "The atrium as an almost invariable feature of the early Basilica in the West in the fifth century became less common and only in rare cases imitated in the middle ages."—Lowrie, *Pictorial Art*.

² There is an excellent illustration of this screen in *Cathedral Builders*.

³ *Cathedral Builders*.

⁴ Nesbit: on The Churches of Rome earlier than 1150. He gives a good illustration of part of the railing surrounding choir.

⁵ Leader Scott gives the name of this mason Sisimus in the record of the Roman Lodge, and gives date as seventh or eighth century.

be overlooked by anyone interested in studying intrecci. This church, which is reckoned one of the good specimens of mediæval architecture remaining in Rome,¹ resembles externally the Lombard churches of North Italy. Its squat fortress-like tower belongs to a different type from the airy belfries of Sta Agnese and Sta Maria in Cosmedin. But though as it stands now the work of the Comacine builders of Carolingian times is manifest in it, like St. Clemente it shows traces of a much more ancient origin in the courtyard and vestibule by which it is entered.² There are two courtyards opening one out of the other, and on the northern wall of the innermost is

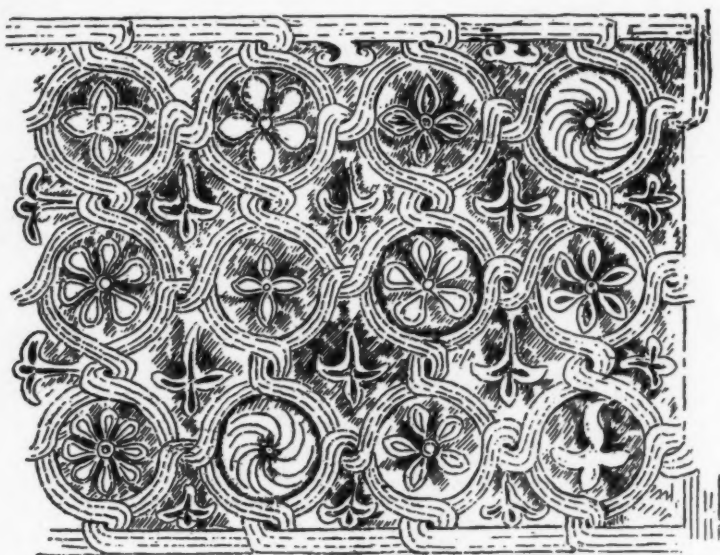


Fig. 2.—Panel from Sta Maria in Cosmedin.

a fragment of a beautiful intreccio. On either side of this, but apparently unconnected with it, are slabs with archaic figures.³

SS. Quattro Coronati is dedicated to the memory of four martyred sculptors of Rome, and is still held in special affection by the stone-cutters of the city. Four brothers, sculptors, suffered martyrdom under Diocletian for refusing to make images of the false gods. "We cannot," they said to the Pagan emperor, "build a temple for false gods, nor shape images in wood and stone to ensnare the souls of others."⁴

¹ Lanciani: *Pagan and Christian Rome*.

² Nesbit gives its date as 625-638, which is certainly not over-estimating its antiquity.

³ Lowrie mentions these archaic figures as being of the same date as the figures on doors of Sta Sabina, viz., fifth century.

⁴ Leader Scott's *Cathedral Builders*.

I cannot in this article attempt to pursue the interesting subject of the work of the guild elsewhere than in Rome, but it ought to be remembered in connection with this church, dedicated to sculptors, that it is recorded of the first British martyr, St. Alban, who suffered also under Diocletian, that he was a celebrated architect—most likely a member of the famous guild, as he served in Rome in his youth and was appointed by the Emperor Carausius, himself a mason, to preside over the fraternity established in Britain in the fourth century. This also serves to mark the fact that the Comacine guild was a revival, not a new institution, for the story of St. Alban proves that there was a masonic fraternity—the descendant of the Roman *Collegia*—established in Britain at this early date.

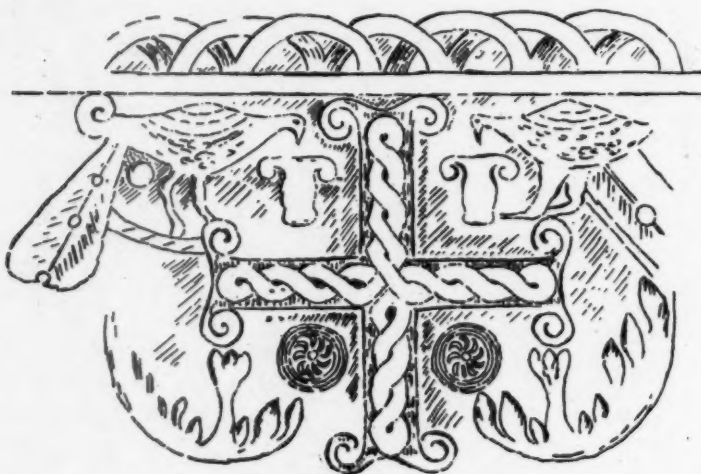


Fig. 3.—Panel from Sta Maria in Cosmedin.

There are few more interesting churches in Rome than Sta Maria in Cosmedin, which stands on the edge of the Tiber, close to the temple of Hercules and the temple of Fortune in the Forum Boarium. Leader Scott mentions this church as one of those which was designed and executed by the Lombard architects of the ninth century, and their work is directly apparent in it, but there was a Christian church upon this site long before that. Lanciani gives the following account of the remains discovered under it: "(a) Remains of the temple of Ceres, two thousand four hundred years old; (b) a hall of the fourth century after Christ, with an open colonnade on three sides, resembling the *loggia di mercanti* of our mediæval cities; (c) remains of the original *Diaconia*, believed to be



Fig. 4.—Intrecci from Sta Sabina.

contemporary with the reigns of Theodoric and Alalaric; (*d*) remains of the church re-built and enlarged by Pope Hadrian I., about A.D. 780. Up to 725 this was the national church of the colony of the Schola Græca. On the back of the screen which divides the chancel from the choir in this church are two marble slabs covered with sculpture: that to the south aisle of the chancel shows an intricate and beautiful design, the foundation of which is the endless knot; that to the north is a design of a different character, more suggestive of Byzantine work and influence. The centre of this is a Greek cross with a tree, probably intended for the tree of life; to right and left and below the arms of the cross on either side are peacocks drinking out of a vase.¹ At first sight it appears as if this slab had been with almost inexplicable carelessness inserted by a restorer in the parapet upside down, but a closer examination of it seems to show that it was not intended for a vertical position, but a horizontal one.

Sta Sabina, on the Aventine, contains a very interesting collection of intrecci; they are not *in situ*, but have been placed in a group on the north² wall of the church. This church was founded in 425 by Peter, an Illyrian priest, who, according to Lanciani, availed himself of the spoils of a neighbouring classic edifice, some of the columns of which are still to be seen in the vestibule.³ In a more recent book⁴ of Lanciani's than the one first quoted there is this additional information: "I have just found in some long-forgotten records of the state archives that the section of the Aventine Hill upon which stands the church of Sta Sabina was called in the middle ages "Lo Monte de lo Serpente,"⁵ a manifest reminder of the great temple of Juno Regina, on the remains of which, shattered by the earthquake of A.D. 422, the church of St. Sabina was built in 425."

At Sta Saba, on the Pseudo Aventine, a church where excavations of an under church were in progress when I saw it in 1901, there is a collection of intrecci as numerous as at Sta Sabina and somewhat similar in character. They were lying on the ground outside the church when I saw them, but owing to the absence of the custodian I was unable to make sketches of them, as the small boy in charge was not qualified to give the necessary permission.

¹ A peacock drinking out of a vase, symbolical of the thirsty soul and the waters of salvation. See Twynning's *Symbols of Early Christian and Medieval Art*.

² I use the expressions N., S., E., W., for convenience, but it must be remembered that the orientation of the Roman Churches is uncertain.

³ Lanciani: *Ruins and Excavations of Ancient Rome*.

⁴ Lanciani: *New Tales of Old Rome*.

⁵ The name Monte de lo Serpente refers to the terrible trap in the form of a serpent which awaited suspected offenders in the temple.

I found an interesting slab in a horizontal position sunk in the ground on the terrace that runs in front of S. Paolo alle Tre Fontane. It is somewhat similar in design to the knotwork on the doorway of the Chapel of S. Zeno in Sta Prassede.

In the dim light of an under church near the Forum I saw a solitary sculptured slab which had been inserted in the middle of a plain pavement, but I could not, during my stay in Rome, make anything of the nature of an exhaustive examination of even the most apparent of the intrecci.

For the benefit of others who may be interested in the subject I give the following list of places where they can be studied, but it must not be regarded as a complete one: S. Clemente, Sta Maria Maria in Trastivere, SS. Quatro Sante, SS. Apostoli, Sta Prassede, in Cosmedin, Sta Agnese, S. Lorenzo in Lucina, Tre Fontane, Sta Sabina, Sta Saba, as well as fragments in the Forum and the Palatine.

The subject is a large one, presenting many facets to the student if he takes the intrecci as a link in the history of art, a link in the history of the early Christian Church and Christian Symbolism, and in connection with the story of that ancient masonic guild whose signs may be traced not only in the churches of Rome, but in the churches of our own land.

H. ELRINGTON.

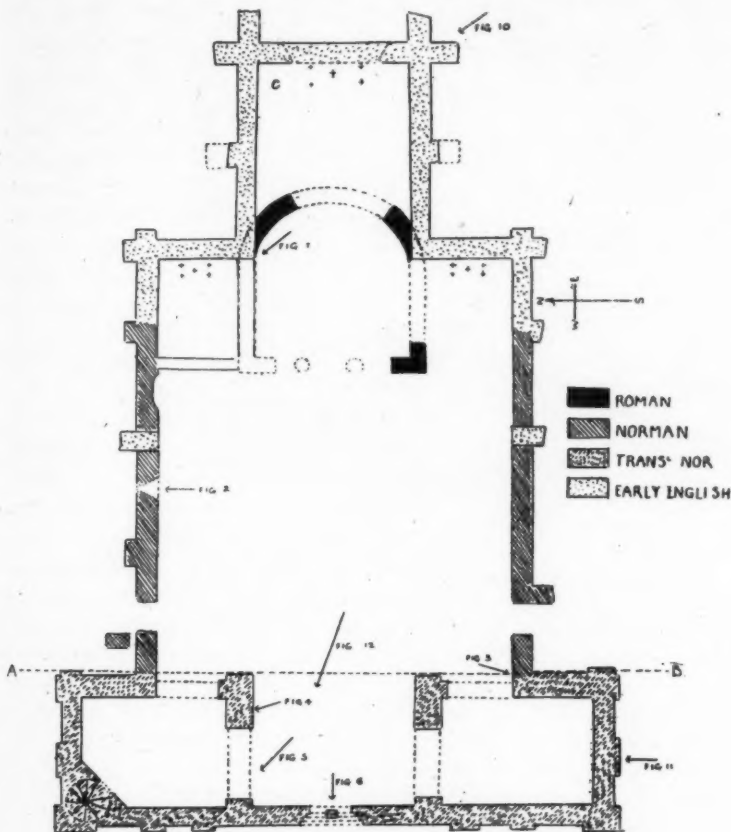
The Church of St. Mary, Reculver, Kent.

TO many people who visit Herne Bay during the summer months, a flying visit to Reculver is considered to be a sort of bounden duty, but out of every fifty such visitors probably not five approach the building with any definite knowledge of its great antiquity. After having purchased a guide-book from the attendant, they glance casually around the place, and depart quite satisfied that a duty has been performed. The studious few, however, will endeavour to work out for themselves a few of the architectural facts concerning the building, and their self-imposed task will certainly give them ample food for reflection. The object of this paper is to put before intending visitors some few notes on the developments in plan and elevation which will, I think, show that the ruined sanctuary is a place of considerable interest.

Notwithstanding the past importance of Reculver, we have but few allusions to it in ancient literature; foremost of course comes that of Bede, who under the date A.D. 690, records that Berctwald succeeded Theodore in the Archbishopric (of Canterbury) being abbot of the Monastery at Raculf which lies on the north side of the River Genlade. This is important as showing that even at that early date a church already existed with presumably its complement of monastic officers; although Bede gives no description of the buildings we may with safety assume them to have been of a substantial character, being probably a portion of the Roman buildings of which some scant remains still exist. In the *Anglo-Saxon Chronicle* under date A.D. 669 we have "This year King Egbert gave Reculf to Bass the mass-priest that he might build a Minster thereon." It is evident from these scanty notices that a building was erected at Reculver soon after A.D. 669, and it now becomes necessary to consider the probable character of this early structure. Unfortunately we are left entirely to comparative observations; Bede mentions that in 680 stone churches were built at Wearmouth and Jarrow. This erection of stone buildings has been

The Church of St. Mary, Reculver, Kent. 23

considered as a matter of some moment, and rightly so, as the Saxon architects though in many cases having the Roman buildings before them, seem to have quite lost the art of building in stone. There is some probability that at Reculver the church or a portion of it was of stone or brick, though of Roman not Saxon construction,



Sketch Plan, Reculver Church.

or in other words, the building of the Minster by Bass may have been only an adaptation of the Roman remains to the needs of Church ceremonial. It is probable that if the Saxons entirely rebuilt the church in stone, we should have had some mention of it in the *Ecclesiastical History*; Bede makes many allusions to the ancient kingdom of Kent, and an event such as the erection of a stone

24 *The Church of St. Mary, Reculver, Kent.*

church would probably have received attention. Presuming then that the church built by Bass included the superficial adaptation of the existing Roman building, we may with equal probability assume that



Fig. 1.—Junction of Roman apse and Norman wall, Reculver.

not, therefore, be hastily assumed that because there is no structural evidence of a Saxon church, such a building never existed. To be convinced of the erosive power of the sea-air one need only turn to the wind-swept remains of the thirteenth century chancel in order to see the quick wasting away of the stonework.

We will now examine the existing remains and endeavour to trace the developments both in plan and elevation.

Of the Roman building there is little direct evidence, and on the accompanying sketch plan are outlined all the constructional Roman remains still *in situ*; Roman tiles are built into all the later walls with

the portions actually built by him were of wood, and this well agrees with the lack of Saxon work in the present building. Even under the most favourable circumstance external wood-work has, as it were, a very transient existence and its demolition on a coast exposed to the weather and hostile attacks of human enemies would probably be only a matter of a few centuries. It may

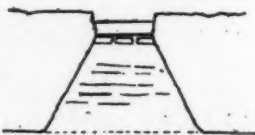


Fig. 2.—Plan of window, north wall of nave, Reculver.

the exception of the west front, which is of roughly dressed and squared stones and some unworked material. This general dispersion of Roman material is an eloquent testimony to the general rebuilding which took place during the twelfth and thirteenth centuries. It will be seen by the ground plan that the only undoubted Roman work is a portion of the apse foundation; on the ground its junction with the Norman work can be distinctly and well seen. In the sketch, fig. 1, the junction of the Norman wall and Roman apse is shown and lettered A; the foundations of the latter are seen going away to the right. This is practically the sum total of the Roman work at the Church itself, though the encircling wall of the Roman castrum remains in places in good condition.

Coming next to the debatable question of existing Saxon work, there are, it must be confessed, but few details to support the contention. The late Mr. Dowker, F.S.A., says that some portions of the north wall are of Saxon date, but he does not give his reasons for thus dating it. In the north wall are the remains of

a window which certainly has something approaching a Saxon character; it is shown in plan on fig. 2; the only feature which resembles pre-Norman work is its diminutive character, and the question of its date turns wholly on the position of the glazing when complete; if this was placed midway between the inner and outer splays, then one might be inclined to regard it as Saxon, but it is really quite impossible to decide on this question, as the detail is practically eroded away. Even allowing it to be Saxon, there is nothing to show that it was a portion erected by Bass *circa* 669; in fact, many smaller Saxon windows are entirely without the sloping inner cill, having merely a flat ledge of masonry. To argue that this very much mutilated

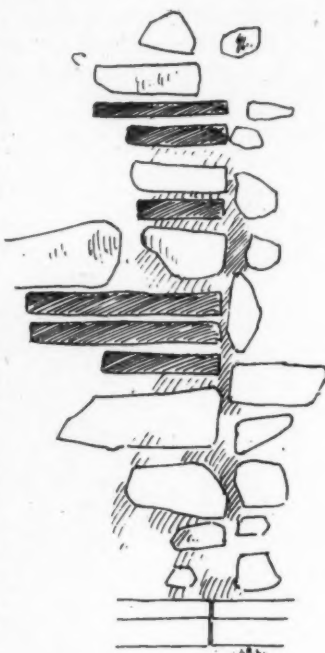


Fig. 3.—Joints in masonry under south west tower, Reculver.



Fig. 4.—Capitals to tower supports, Reculver.

26 *The Church of St. Mary, Reculver, Kent.*

window is Saxon (when it is the only feature left at all resembling that style) seems very much like special pleading. This is the only fragment in the building on which any doubt is permissible as to style, all the other features falling into well defined Roman, Norman, and Early English periods.

It seems that in the twelfth century the church underwent a considerable elevational alteration, though not necessarily alterations in plan. Those at present discernible are the rebuilt north and

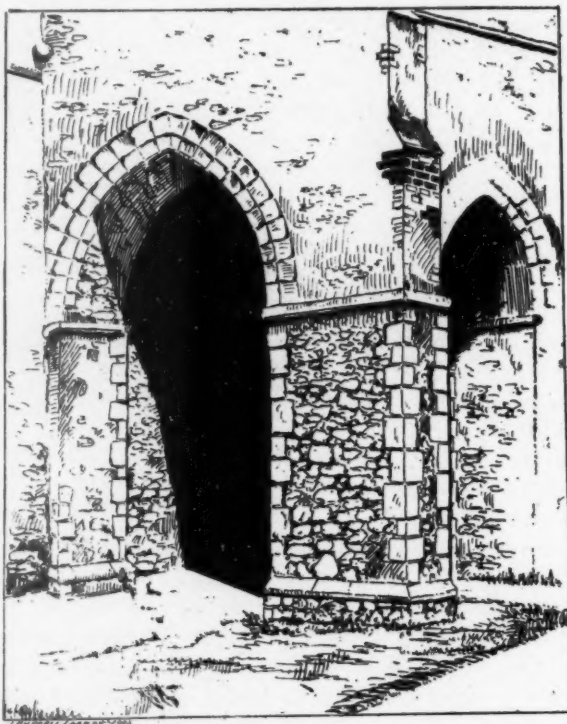


Fig. 5.—Detail of north-west tower, Reculver.

south walls of the nave, the whole extent of which can be fairly well traced. The earlier basilica was probably retained, the more so when we remember the predilection of the Normans for the apsidal ending and their adoption of it in nearly all their large churches. The Norman builders, although great admirers of the apsidal ending, did not often erect such expensive features in the smaller churches, but at Reculver they would probably retain the Roman apse if it existed when they took over the lordship of the soil.

Of the west front during the middle of the twelfth century little can be said; it probably terminated at the line A to B on the plan; this, too, may very possibly have been the western termination of the Roman structure, as two perpendicular joints in the masonry (one under each tower) are still evident (fig. 3). The figure shows the distinct junction of the Roman tiles and the ordinary twelfth century ashlar of the towers.

The late Mr. Dowker assigned the western towers to the thirteenth century, and as this most improbable date is mentioned

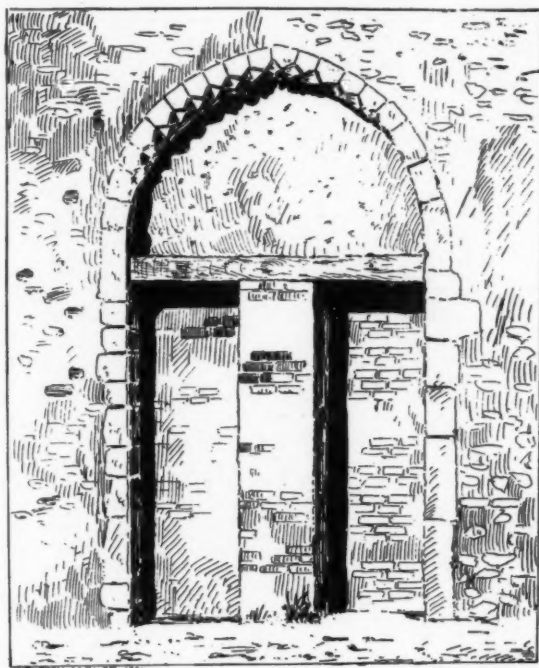


Fig. 6.—Detail of west door, Reculver. Looking west.

in the guide-book, it is necessary to carefully consider the architectural evidences for the statement. Particular attention is therefore drawn to the following points:—

(1) The tooling on the surface of the ashlar is in long, coarse lines, very slightly curved from the use of the axe—a feature never seen in Early English work.

(2) The arches, although obtusely pointed, have the plainest form of capital, consisting only of a moulded string (fig. 4). This is a most important feature, and has the square-edged upper

28 *The Church of St. Mary, Reculver, Kent*

member with the shallow recess and bowtell moulding, all of which could be easily worked with the axe ; the bases, too, shown in fig. 5 are of the plainest type and typically late Norman.

(3) The internal detail of the west door (fig. 6). This consists of a double chevron moulding with the points meeting at the angle of the voissours ; they are so typically late Norman or Transitional work that it seems impossible for them to be regarded as of any other style.

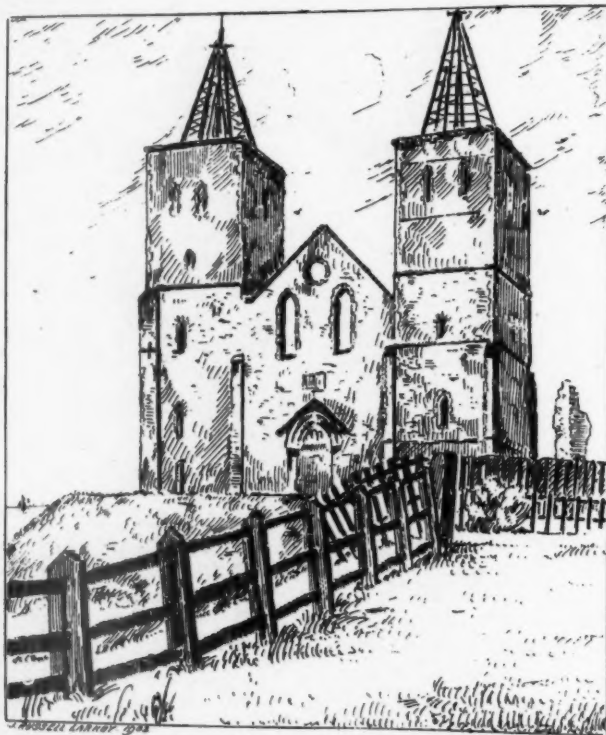


Fig. 7.—West front, Reculver.

(4) The north-western tower. This is ascended by means of a good circular staircase, and the entrance to it is a round-headed door with a flat lintel.

(5) The lights of both towers have pointed arches outside and round-headed rear arches, thus offering additional evidence to the Transitional date for these interesting structures. The form of the arch is, of course, no infallible guide as to style, but where both round and pointed arches occur in close connection it may be reasonably inferred that the work is of the Transitional period.

The Church of St. Mary, Reculver, Kent. 29

It is, however, to the west front that the strongest Transitional evidence is to be found (fig. 7). Particular attention is drawn to the following points:—

(6) The angle buttresses project only some eight inches at the base, and are consequently more like the Norman pilaster supports than anything else; they are certainly utterly unlike the boldly projecting Early English buttresses (see plan). Early English

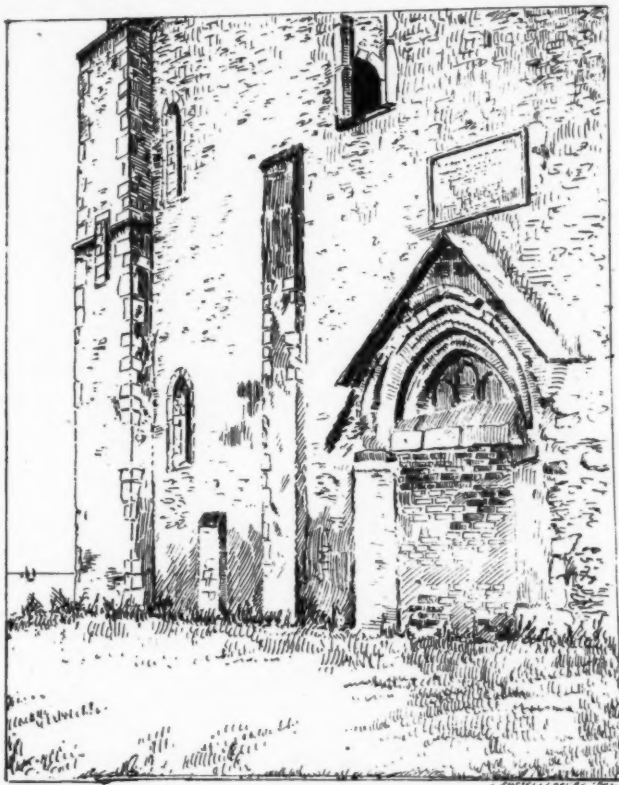


Fig. 8.—Detail of west door, Reculver.

buttresses project boldly from the wall and diminish upward in well-marked stages, but the present examples project and diminish only slightly on plan and above the first string course.

(7) In the south-west tower there is a corbel table formed of square masses typically Norman and showing nothing of Early English influence. It is thus evident that the towers are practically of the same date from base to corbel table.

30 *The Church of St. Mary, Reculver, Kent.*

(8) In the gable between the towers are two lancets with a circular aperture above ; the latter is typically late Norman. Similar features

exist at Orpington and Chelsfield, both in Kent, the former Transitional and the latter Norman. Under the gable is the west door, which even in the general view is typically Transitional. A larger view of it is given in fig. 8. When complete it was of four orders with square edges and having apparently a bowtell moulding on each angle. The inner member has the Early English dogtooth and the second the Norman chevron, the whole composition being enclosed under a shallow pediment or gable something similar to the earlier

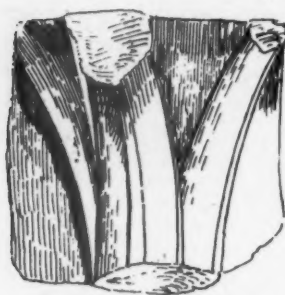


Fig. 9.—Purbeck capital from west door, Reculver.

door at St. Margaret-at-Cliff, Kent. The presence of the chevron

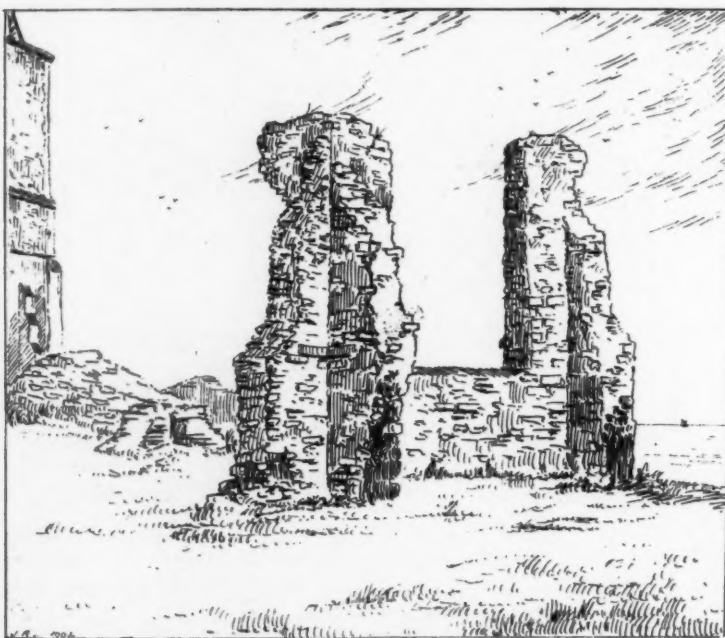


Fig. 10.—East end, looking west, Reculver.

and dogtooth mouldings seems to me to be conclusive as to the Transitional character of the door ; it may even be an insertion

into the still earlier walls of the west front, though of this I am uncertain. Two capitals of Purbeck marble—once forming a part of the door—now lie within the church, and the best preserved is illustrated at fig. 9. It bears such a remarkable resemblance to the capitals of the Transitional door at Orpington that there can be no doubt as to the period of the Reculver examples.

I think it will be seen from these points that the western towers cannot possibly be Early English, but rather belong to the latter part of the twelfth century, though precedence of age should perhaps be allowed to the north-western example. Mr. Dowker seems to have allowed the form of the arch (always poor evidence when taken alone) to deceive him as to the date of this portion of the structure. In judging the date of any building by architectural evidence alone, it is always necessary to compare it with better

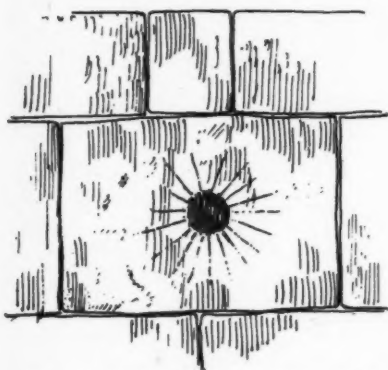


Fig. 11.—Sundial, south-west tower, Reculver.



Section of wall in chancel.

defined features in other churches; thus the towers at Reculver may be compared with details in the churches of Horton-Kirby, Orpington, St. Paul Cray, and Chelsfield, Kent; Catherington, East Meon, Hants; and the magnificent abbey church of Llanthony, Monmouthshire.

The last period of visible structural alteration was the thirteenth century, when the usual Early English extension of the chancel took place. This, of course, necessitated the destruction of the Roman apse and the removal of the altar some distance to the east. Of this thirteenth century building little evidence remains, as owing to constant erosion, nothing but the larger features are left. Its present condition can be seen by fig. 10, which shows the projection of the cross buttresses and the aperture once occupied by the east window; other thirteenth century masonry occurs in the buttresses

32 *The Church of St. Mary, Reculver, Kent.*

of the nave, some of which pass through the earlier walls, whilst others are merely built up against them.

The attendant informed me that at the spot marked C on the plan there is a vault, but nothing can be gleaned locally of its character. A few tiles of a dull red glaze were also found here some years ago; they were probably laid down when the eastern arm of the church was extended in the thirteenth century.

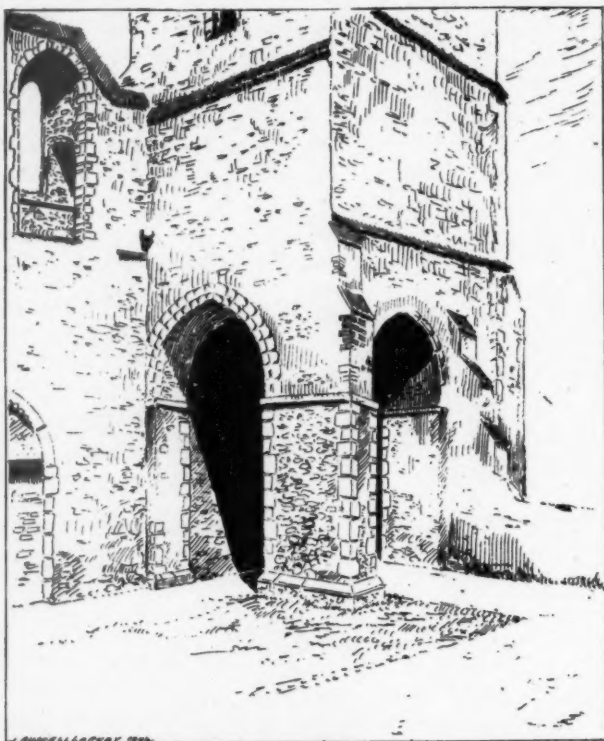


Fig. 12.—North-west tower and portion of the west front, Reculver.

Again referring to the sketch plan at the spot marked D, and 3 ft. 6 ins. from the ground, is a sundial, illustrated on fig. 11. Its date may be anywhere between the thirteenth and fifteenth centuries.

In conclusion, I have to thank the Elder Brethren of Trinity House for permission to make the foregoing notes and sketches, and also the attendant, Mr. Holman, for his kind attention during a very pleasant visit to Reculver.

J. RUSSELL LARKBY.

Large Bells.

UNDER the above heading I shall include church, temple and clock bells, etc. In my former article (*The Reliquary*, October, 1900) I gave an account of ancient and modern small bells for hand use and for cattle, horses, etc. In this article I purpose treating on bells which, by reason of their largeness, are usually hung in towers or from a framework and are struck by a clapper from their inside or by a hammer or beam from their outside.

Polydore Virgil says that the invention of bells such as were hung in the towers of Christian churches dates from the fifth century A.D., when they were introduced by Paulinus, Bishop of Nola, in Campania (about 400). By the seventh century bells were used in parish churches in England and France. It is recorded that in the year 610, the army of King Clothaire of France was frightened away from besieging the city of Sens by the ringing of the bells of St. Stephen's Church there. Bede says that church bells were introduced into Britain in A.D. 680 from Italy. About the eighth century church bells began to increase in size, and were dedicated to their functions with religious rites, and frequently bore pious inscriptions.

It is stated that Edward III. placed three bells in the Sanctuary at Westminster. On the biggest of them the following was inscribed: "King Edward made me thirty thousand weight and three, Take me down and wey mee and more you shall find me." They were, I believe, removed in the reign of Henry VIII.

In fig. 1 will be seen two bells of the Edwardian period—1335. They were hung in Glastonbury Monastery about that year, but owing to the suppression of that establishment at the Reformation, the authorities of Wells Cathedral contrived to get them secretly conveyed to the latter building; and these bells remained in the possession of the Dean and Chapter until 1878, when they were given in part exchange for new ones of larger dimensions, cast by Messrs. Gillett and Johnston, of Croydon. The latter sold them to the Victoria and Albert Museum, South Kensington, where they are now to be seen. These specimens when

in Wells Cathedral were hung in recesses, and the "ding-dong" quarters struck upon them by the carved oak figures shown in the illustration. The knights still strike, but upon the larger bells aforesaid. The Wells Cathedral clock, I may here mention, is an astronomical one, and has a series of mounted knights who tilt at or against one another at certain intervals.



Fig 1.—Two bells from Glastonbury Monastery, fourteenth century.

Before describing some of the large and famous bells of more modern times, it will be as well to give the reader an idea of how bells generally were and are made.

Bell-metal is a mixture of copper and tin, in the proportion of about three parts of copper to one of tin.

The old method of casting a bell was something like the following:—A core was made to the exact shape of the inside of the bell, only rather smaller, and on it brick loam was plastered and modelled to the form of the inside of the bell desired. Over this preparation a coating of hay bands and loam was laid, the exact thickness the bell was intended to be made. On this thickening the outer leg of the crook was made to revolve, and so to form the shape of the outside of the bell (or, in other words, the inside of the cope, or outer case).

The more modern process of bell-casting is as follows (as I have seen bells cast by some celebrated firms, I can speak from practical observation):—

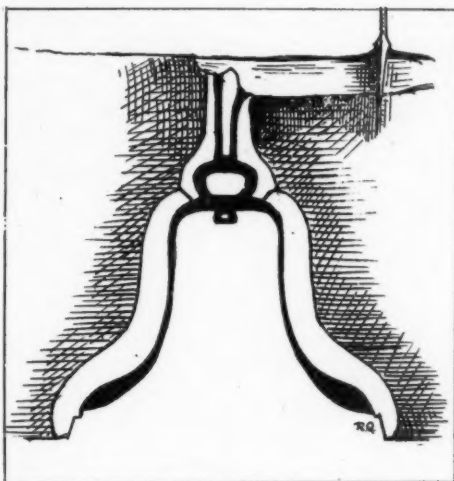


Fig. 2—Section of bell in pit.

A glance at the sketch (fig. 2) will explain what such a casting is like; it represents the section of a bell as it lies in the pit during the process of casting. The core, or inside mould, which forms the inner surface of a bell is (as in the old process) formed by a compass-crook, which is made to rotate on the clay, etc., of which the mould is composed on a foundation of brick, with a hollow in the centre, into which, if the bell be large, a fire is afterwards made to dry the core. The crook, or compass, is made to rotate on a pivot affixed to a beam above, with its lower end driven into the base. In fig. 3 will be seen a number of such cores, or inner moulds, for a peal of bells. The cope, or outer mould, is formed in the same way, except that it is turned upside

down, and that it is, of course, its inner surface which is smoothed to form (the outside of) the bell. And here it is that the inscription, legend, motto, date or any other device is impressed or moulded as it were in intaglio. After the core has become

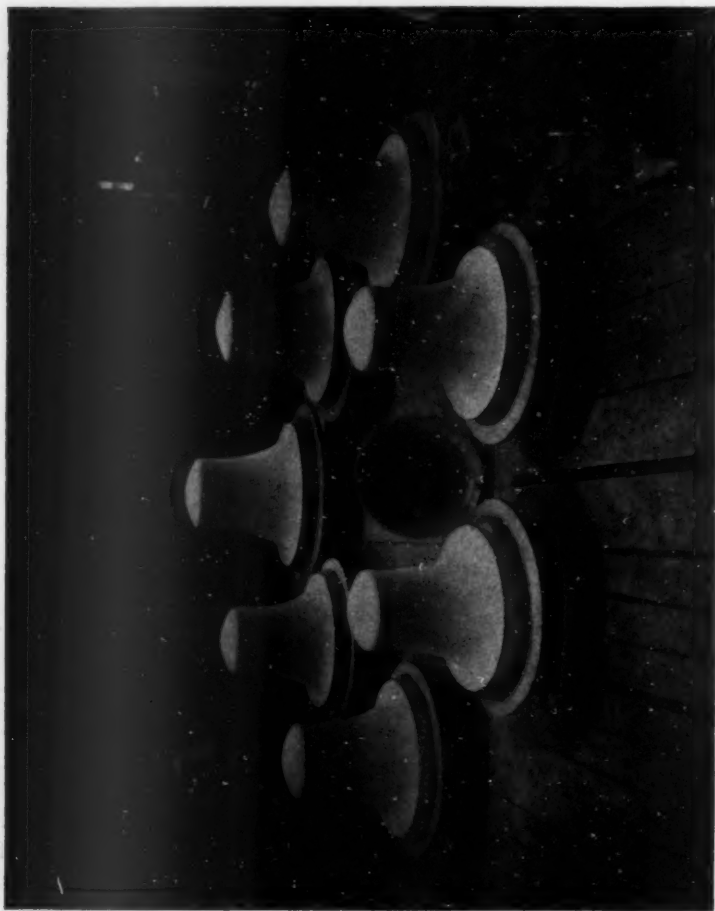


Fig. 3.—Cores for peal of bells.

sufficiently hard, it is covered all over with charcoal and black-lead. When hard dry the cope or case is removed, and in this way we get the exact shape of the outside of the future bell. The cope is next placed over the core (like an extinguisher over

a candle), the space thus being left between for the molten metal to flow into. Another space is left at the top for the escape of the air. The moulding for the head and staple to hold the clapper are then fitted on.



Fig. 4.—Copes or outer moulds for peal of bells.

In the latest process, however, the crown staple is applied afterwards and passes through both the bell crown and the carrying stock.

In fig. 4 will be seen a number of such copes, cases, or outer moulds for a peal of bells.

When completed the various moulds (supposing, as is generally the case, that several bells are cast at one time) are embedded in the earth-pit close to the furnace, and nothing of them is visible but the holes in their caps. When the bell-metal is found to be of the right temperature, the furnace-stopping is broken in or opened, and out rushes the dull-red fluid metal like liquid fire, boiling and bubbling. It is often of too fierce a heat to be looked at. It is led from the mouth of the furnace to the pit by



Fig. 4A.—Bells turned up for tuning.

means of a series of brick gutters or troughs; and when one bell is completed the fiery stream is stopped by means of an instrument of spade-like shape, and directed to the top of the next bell. The metal disappears into the depths of the mould for about a minute or two, at the finish it rises bubbling up and filling the upper spaces, forming a little hot lake above the main casting.

The process adopted for small bells in the ordinary way is by carrying the molten metal in crucibles to the moulds. I saw a peal of eight bells cast which occupied only a quarter of an hour, that

is, from the time the metal began to flow until the last bell was finished. An ordinary bell takes about twenty-four hours to cool.

After a bell is dug out of its pit, it is taken to the tuning room. The process of tuning is a simple one, a slight shaving off

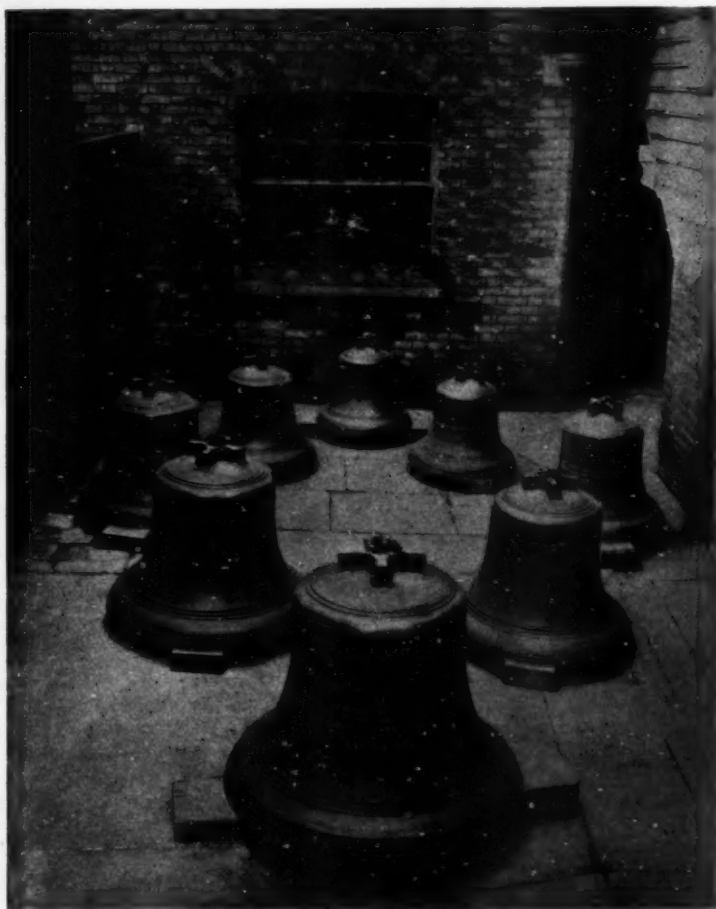


Fig. 5.—Peal of eight bells.

the middle part of the interior will make a bell flatter, and a similar shaving off the bottom or rim will sharpen. At the same time, tuning is not always necessary. When a peal of bells is cast true and in harmony, which is no common event, it is termed "a

maiden peal." (In my illustration, a peal of ten bells will be seen turned up ready for tuning.) Fig. 4a.

In the fifth illustration will be seen a peal or ring of bells (for Rothbury, Northumberland; tenor in the foreground 14 cwt.) in the

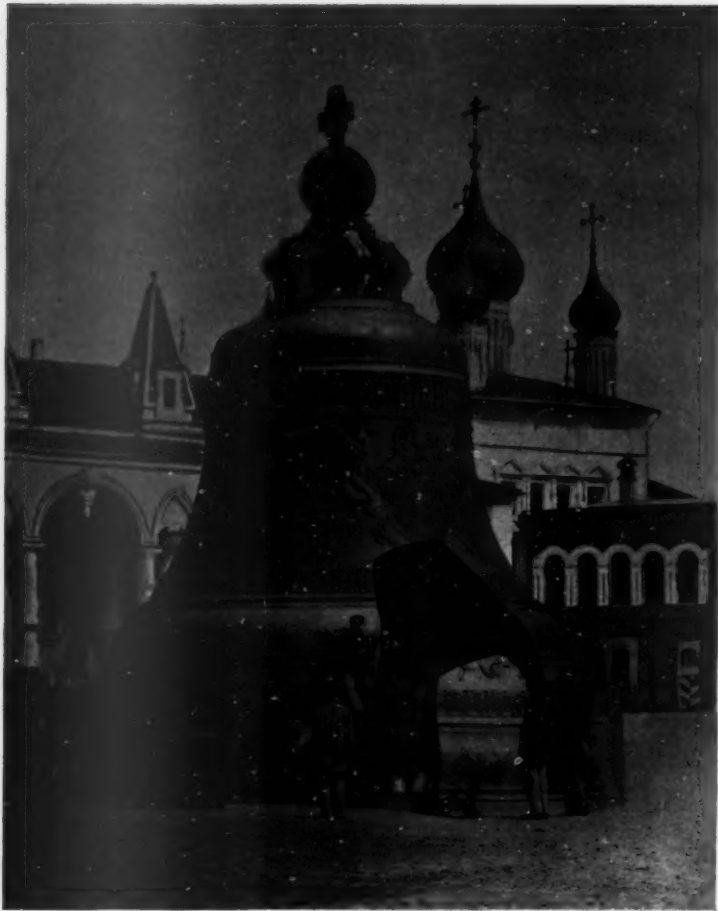


Fig. 6.—The great bell of Moscow.

foundry yard of Messrs. Mears and Stainbank, where (as already implied) I had the privilege of seeing a peal cast.

The normal proportions of form for a bell are the following,

The thickness of the sound bow or brim, that is, the part struck by the hammer or clapper, is $\frac{1}{8}$ the diameter, and the height to the shoulder 12 brims, and in width at the shoulder $7\frac{1}{2}$ brims, or half the width of the mouth. These proportions are, however, sometimes varied.

The celebrated bells of the world are headed by the great Bell of Moscow. This is known to Russians by the name of "Tsarine Kolokol," or Queen of Bells, and is undoubtedly the largest and heaviest bell in the world. It has been twice re-cast, the last time in 1733, by order of the Empress Anna Ivanovna, to replace the bell of the Tsar Alexis Michaelovitch, which was broken at the time of the fire at the Kremlin in 1701.

This final bell is 20 ft. 7 ins. high, and is 22 ft. 8 ins. in diameter at the mouth, and its greatest thickness is 22 ins. It weighs about 193 tons.

I may here mention a fact that throws light on the opening in the bell which is so noticeable in all the pictures of it (see fig. 6).

In 1737 (four years after the bell was cast) a great and terrible fire broke out, and destroyed a part of the city, including the workshops and other timber round and above the bell, which appears to have never been removed from its mould, and which, it is said, became so hot that the inhabitants, thinking to save their precious casting, threw water on it, and so caused the fracture which is seen to-day by the piece which came out. The water thus, in reality, did more harm than good. After it was broken, it still lay in the pit for just upon a century. The Emperor Nicholas I. ordered that the bell should be raised, and so, with great engineering skill and patience, this was accomplished on July 23rd, 1836. Thus when this colossus first saw the full light of day it was 103 years of age.

The operation, says Mr. Montferrand (the engineer), took 43 minutes. Three days after it was placed on its present octagonal pedestal of granite.

If the bell is looked at as a work of art, the observer will be struck by the beauty of its form and the elegance of the various designs on its surface.

The bas-reliefs represent the Tsar Alexis Michaelovitch and the Empress Ivanovna; between these portraits, upon two cartouches, are inscriptions. The upper part of the bell is ornamented by figures of our Lord, the Virgin, and the four Evangelists, and by a band of an especially beautiful pattern. The whole is now surmounted by a ball and Greek cross, also of bronze. The total height of the

whole is 34 ft. It has, of course, been of no practical use, and has probably never given forth a musical note.

Fig. 7 represents the Mingun Bell or Great Bell of Mandalay. It is, I believe, the largest hanging bell in the world. It is located



Fig. 7.—The great bell at Mingun, Burma.

on the right bank of the Irrawaddy, almost opposite the city of Mandalay. This immense bell measures as follows: height to crown, 12 ft.; 21 ft. high to the top of the griffin-like monsters; diameter at the lip, 16 ft. 3 ins.; thickness of metal from 6 to

12 ins. It weighs about 80 tons. It is suspended on three massive round beams of teak placed horizontally the one over the other, their ends resting on two pillars of enormous size, composed of masonry and large upright teak posts. Mr. Horniman tells me that when he saw it in 1896 persons were making preparations for restoring the broken wall and to raise the bell, which had dropped. This bell was cast at the end of the last century under the superintendence of the reigning king. It is, indeed, a prodigious casting, and a high proof of the skill and ingenuity of the Burmese, who attach great importance to their bells, which are used in connection with the rites and ceremonies of Buddhism.

The next largest bell is again to be found in Moscow, a city celebrated for gigantic bells. It is hung in the tower of St. Ivan's Church. It was cast in 1760, and weighs about 63 tons. It is called the "Bolshoi" (the "big").

China is also renowned for its bells. The great bell of Peking is suspended in a tower or two-storied pagoda. Dr. Rennie, who visited it in 1862, says that it is one of eight great bells cast in the reign of Yang-lo, about 1400 A.D., and is a wonderful work of art. It is about 20 ft. high and 11 ft. in diameter, and is estimated to weigh a little over 62 tons.

Chinese bells are all more or less of one type. There is a big Chinese bell in our museum. It measures in height 4 ft. 6 ins., and is 3 ft. 8½ ins. in diameter. The canon or loop forms a dragon. It is of meteoric (?) iron covered with Chinese characters, and appears to have been cast in a mould composed of three or four layers, and to have been painted in various colours, no doubt to prevent its rusting.

Japan comes next in the scale as to large bells. Two are especially colossal. One of these is located in the city of Kioto, and until lately was resting on a stone base, like the Moscow bell. It was cast in 1614 at Nagoya. The tower in which it used to hang was burnt down along with the temple, and the bell has only recently been re-hung in a new tower. The bell measures 11 ft. in height and 9 ft. 3 ins. in diameter, and is 10 ins. thick at its bottom edge. It is said to weigh about 63 tons.

There is a still heavier bell at another temple, called "Chionin," which was cast in 1633, and weighs about 74 tons.

Neither Japanese nor Chinese bells are struck by clappers, either inside or out, but by the ends of long poles or beams hung by cords or chains; and when the priest strikes the bell with this battering ram-like hammer there is given out a majestic boom which is heard for miles around. The "strike spot" will be

noticed on all these bells, and their loops for suspension are always dragon-headed. We have in the museum two excellent specimens of Japanese bells.

We have also one 2 ft. 10 ins. in height, with a diameter of 1 ft. 6½ ins. It has raised balls, or bosses, which are peculiar to these bells. There are two very similar specimens, but somewhat larger, at the South Kensington Museum aforesaid.

There is a large bell at Kamakura which dates from the year 1201. It is 8 ft. high, and 4 ft. 7 ins. in diameter. It will be noticed that both Chinese and Japanese bells are much taller in proportion to their width than are our European bells.

In Rangoon (Burma) some very large bells are also to be found. Mr. Bird, in his work on Burma, 1897, gives the principal dimensions of the "Maha-ganda" (of great sound) bell: height is 14 ft., diameter at lip is 7 ft. 7½ ins., thickness of metal 15 ins., and weight nearly 42 tons. The Horniman Museum possesses two characteristic Burmese temple bells, brought from Rangoon by Mr. Horniman (1896); they are similar in design to the colossal ones. The larger of the two is 1 ft. 7 ins. high, and 1 ft. 1½ ins. in diameter, with an elaborate loop for suspension; total height, 2 ft. 2 ins.

In fig. 8 we have a very interesting Burmese temple bell (formerly in the late Sir Henry Dryden's collection, now in the Horniman Museum), which has a Burmese inscription running round the lower part, the translation of which is as follows: "The offering of Oo-Shoay-nee, who resides near the royal monastery buildings, weight of copper used four vis." A "vis" is equal to 3½ English pounds, so that the bell weighs a little over 13 pounds. It is 11½ ins. high, with a diameter at mouth of 7¼ ins.

The bell in St. Stephen's Church at Vienna is considered the largest bell in Europe—west of Russia. It is 10 ft. high by 9 ft. 10 ins. in diameter, and weighs about 18 tons. The bell was cast in 1711, and was first swung on the occasion of the entry of the Emperor Charles VI. into Vienna in 1712. It takes twelve men to put the bell in proper motion. There are several other church bells in Russia which weigh from 29 tons downwards.

There are other large and heavy bells in France, Germany, and Spain, etc., but space will not permit my mentioning them severally, but I must not forget our own large bell, which comes next in order of size, viz., the great bell of St. Paul's Cathedral, called "Great Paul." This is the heaviest bell ever cast in the United Kingdom, and is of the following dimensions: height, from lip to top of crown, 8 ft. 10 ins., and height to top of canons,

9 ft. 6 ins.; diameter of mouth, 9 ft. 6 $\frac{1}{4}$ ins.; thickness of sound bow, 8 $\frac{3}{4}$ ins. The note is E flat, and the weight 16 tons 14 cwt. 2 qrs. 19 lbs. (or, roughly, nearly 17 tons). It (or rather she, as all bells are feminine) claims to be what is called a Bourdon, or deep-toned bell, or, more accurately speaking, one giving a deep sustained or continuous tone. Upwards of 20 tons of metal were used, and this took nearly nine hours to melt. The actual founding only occupied four minutes. It was cast on Nov. 23rd, 1881, by



Fig. 8.—Burmese bell with inscription.

John Taylor & Co., at the Loughborough Foundry, and brought to London on a massive trolley, in all weighing 22 tons. It was swung for the first time on Easter Sunday, 1882, and is now daily rung, or rather sounded, at 1 o'clock for five minutes. I had the pleasure not long since of lending a hand at one of these "ringings," which require four men. She is a grand bell, perfect in every respect, with a soft melodious tone. She is, of course, not

so historical as the old hour-bell which hangs in the same tower. This was cast in 1709 by the predecessors of Messrs. Mears and Stainbank, and weighs 5 tons 4 cwt.

The largest clock bell ever founded in England was the first "Big Ben," cast by Warner & Sons in 1856, near Stockton-on-Tees, for the clock tower of the Westminster Houses of Parliament. She was 7 ft. 10½ ins. in height and 9 ft. 5½ ins. in diameter, and weighed 16½ tons. The four quarter bells weigh collectively about 8 tons, and were cast by order of Her Majesty the Queen in the nineteenth year of her reign; an inscription to that effect runs round the largest quarter bell just above its sound bow. It is now believed that this bell was too large to go up the shaft of the tower. It was at first hung in some way on the ground, near the base of the tower, and was tested both with clapper and hammer, apparently too severely, as it was soon cracked. It was then taken away to the foundry of Messrs. Mears & Stainbank, of Whitechapel, and melted up again; the authorities having given the second order to this firm.

They have here produced (in 1858) a big bell, which is, however, a little smaller than the old one, weighing only 13½ tons, or 2½ tons less than its predecessor. The diameter at the mouth is 9 ft. (5½ ins. less), and the height about 7 ft. 6 ins. Its clapper weighs 6 cwt., but it is never to be used (except probably at the death of the reigning sovereign), the bell being struck by a hammer like all clock bells. A short time ago I had the privilege of going up this clock-tower and inspecting the whole five bells. I was present when "Ben" and his brethren struck the hour of mid-day, and I shall long remember the deep tone of its sound as it seemed to be wafted over the Thames.

There are two large bells in Montreal, Canada, one weighing 11½ tons, the other 7½ tons.

In Philadelphia there is a large bell, hung in the Independence Hall, and called the "Liberty Bell"; it was the first bell rung in the United States after the declaration of Independence. The bell is thus celebrated as being connected with the memorable 4th of July, 1776. The following inscription runs round the bell's shoulder: "Proclaim liberty throughout all the land unto all the inhabitants thereof" (Leviticus xxv. 10).

Turning to our own country, "Great Peter," of York, is another grand bell—recast in 1845. It weighs 10 tons 15 cwt., with a diameter of 8 ft. 4 ins.

In fig. 9 is depicted the large hour bell at Highmoor, Wigton, Cumberland, which weighs 8 tons 16 cwt., and was cast by the

aforementioned Messrs. Taylor & Co. The workman in the illustration has his thumb on the sound bow.

Manchester possesses a very fine bell in the tower of the Town Hall. It weighs a little over 8 tons, and the diameter is 7 ft. $7\frac{1}{2}$ ins.

There is a large bell at Oxford, called "Great Tom," which weighs 7 tons 15 cwt. Nearly opposite to the tower in which it is hung was formerly an inn, with a sign-board on which was

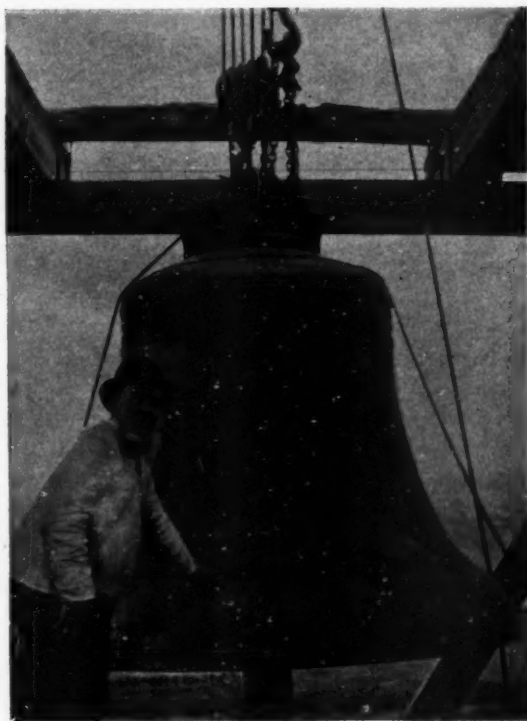


Fig. 9.—Hour bell at Wigton.

painted a bell, and over it the words "OLD TOM," while underneath was given the weight thus: "17,360 lbs." A few years ago the sign-board was taken down, as it was thought to look too old-fashioned, and it is now in the Horniman Museum, in company with other old signs.

There are (reverting again to that part of Europe) several old and large bells on the Continent, one in particular, that formerly hung in a tower in Rouen, and was unfortunately cracked in the

year 1786, during the entry of Louis XVI. It is said to have weighed $15\frac{1}{2}$ tons. It was broken up shortly after and converted into money. It is curious to note with regard to bells, that they have sometimes been made of money, and at others changed into money, and some bells would to-day realize thousands of pounds only as old metal for re-casting. The Moscow bell, for instance, is estimated to be worth £66,565 merely as old bronze.

An especially historical bell is that of "Great Tom" of Lincoln, which was first cast in 1610 by William Newcombe, the predecessor of a predecessor of John Taylor, the head of the before mentioned



Fig. 10.—The Alexandra peal, at the Imperial Institute.

firm at Loughborough. Mr. Newcombe went into partnership with Mr. Henry Oldfield at Nottingham, where this bell was cast. It has since been re-cast by Messrs. Mears & Stainbank. It weighs 5 tons 8 cwt. and is 6 ft. $10\frac{1}{2}$ ins. in diameter.

There is also a fine old bell called "Great Peter," hung in the north tower of Exeter Cathedral, and having been originally presented by Bishop Courteny in 1484. This is dated 1676, and weighs 6 tons 5 cwt., with a diameter of 6 ft. 4 ins. and a thickness of sound bow of 5 ins. The ten bells (some of them dated 1616) which are hung in the south tower are the heaviest peal of ringing bells of such number in this country.

Turning to still more modern bells, a very interesting ten is that in the Queen's Tower of the Imperial Institute, South Kensington, and called the "Alexandra" peal. The peal, collectively, weighs 7 tons 18 cwt. They are each named, as will be seen by the illustration, fig. 10. The tenor, Victoria R.I., 1837-1887, 2 tons. The remainder are called respectively, Albert Edward, Alexandra, Alfred, Arthur, Albert Victor, George, Louise, Victoria, and Maud. Each bell has around its shoulder this inscription: "Elizabeth

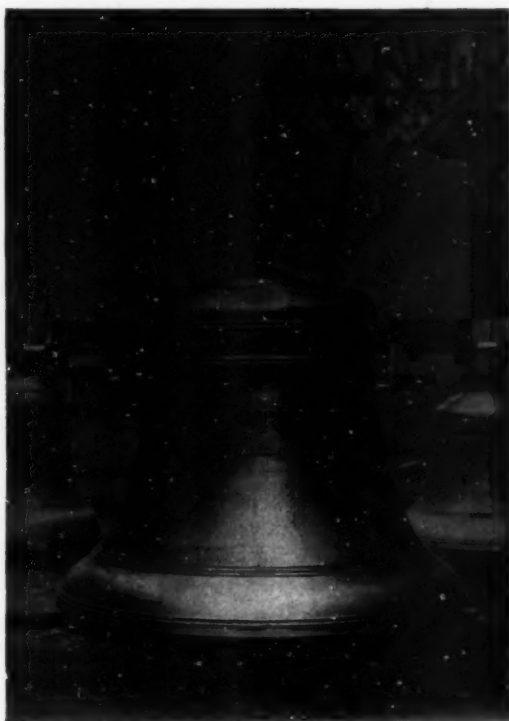


Fig. 11.—The tenor bell, in the Imperial Institute.

M. Millar gave me, The Loughborough Taylors made me," and on the eighth bell, is the following additional—"The peal of which this bell forms one was by special permission of the Princess of Wales named after Her Royal Highness." It is well known that the donor is an Australian lady of Melbourne. The bells were rung for the first time on the opening day of the Imperial Institute, May 10th, 1893.

Large bells, besides being used for churches and public institutions, etc., are also applied by the Trinity House, for lighthouses and buoys, etc.

On the new Eddystone Lighthouse two bells were at first placed; they were cast by Messrs. Gillett & Bland in July, 1881, and were 4 ft. 6 ins. high to the top of the mushroom suspender. The diameter at mouth was 5 ft. $1\frac{1}{4}$ ins. Each bell weighed 2 tons 2 cwt., and both answered to the note C, and were intended to act as fog-signals, the one to leeward and the other to windward. These bells have since been taken down, and in their place sirens are now used—blown by steam. One of these bells, however, may still be heard in the neighbourhood of Croydon, as it was re-cast a trifle smaller, and hung in the Croydon Town Hall in 1894.

The history of the Curfew bell is well known, and this "mandate" is rung in many places even to-day. It is generally one of the church bells which is so employed. Formerly these were, of course, the only ones available.

The inscriptions on bells are far too numerous to refer to in this article. A French writer on bells has wisely said:—"An old bell by its inscription, its medallions, and its ornaments (often), relates the history of the past better than does a mutilated stone."

One of our greatest authorities on church bells was the late Rev. H. T. Ellacombe, whose books on the subject are now becoming scarce, and are much sought after.

I am indebted to the following firms of bell founders for the use of some of my illustrations: Messrs. Mears & Stainbank, Gillett & Johnson, and J. Taylor & Co., to whom I here tender my best thanks.

RICHARD QUICK.

*The Horniman Museum,
Forest Hill.*

Notes on Archæology and Kindred Subjects.

NORMAN FONTS IN NORFOLK.

REFERRING to this note in the April number of *The Reliquary* for 1902, I should like to supplement what has been said about the fonts at Toftrees and Shernborne. I have just returned from North-west Norfolk, and saw most of



Fig. 1.—Norman Font at Sculthorpe, Norfolk. East face.

the Norman fonts in that part of the country. At Sculthorpe (fig. 1), the font is of the same type as that at Toftrees, except that one side (facing east) is divided into five panels, in which are figured the three kings kneeling and

presenting their gifts to the infant Christ, seated on His Mother's lap. The fifth figure may be a shepherd or perhaps St. Joseph. These figures are really beautiful, especially the face of the Virgin, and are far in advance of the figure work usually found on Norman fonts. I am inclined to date this panel as transitional Early English work. The font is quite perfect, and the figures have never been injured. The remaining three sides correspond closely to the Toftrees font in general style and design, but are not so bold.

There is another font of this type at Ingoldesthorpe, between Lynn and Hunstanton. It has been subjected to barbarous treatment, however, and that, too, at a time which we usually reckon to be free from ecclesiastical vandalism. The Church was evidently rebuilt at the close



Fig. 2.—Norman Font at Fincham. South and East faces.

of the Decorated period; its chancel arch is transitional of a peculiar type. The font was then made octagonal by cutting off the corners, and it was set up on a Decorated pier and base. It may have been intended to re-carve the whole font, but this was never done, and now the alternate faces are bare and rough, and the others show the mutilated scroll-work, similar to the fonts at Toftrees and Sculthorpe. Shernborne and Ingoldesthorpe are adjoining parishes.

The fonts at Burnham Deepdale and Fincham are of an entirely different type, and considerably earlier in date. The figure sculpture is much more rude, and there is a conspicuous absence of decorative ornament. Here, again, I venture to question the statement that "they

are not so perfect as the Toftrees and Sherborne fonts." They are both quite perfect, with a possible exception which I will note presently.

The font at Fincham (figs. 2 and 3) is the earlier in appearance. It is square. Each face is divided into three panels by a very plain Norman arcade, the capitals of the pillars being cushions under a square abacus. The top and bottom edges are ornamented with a band of figuring somewhat resembling dogtooth. The five supporting pillars are new (this is also the case at Sculthorpe and Burnham Deepdale), in which respect the font may be considered imperfect. The panels are filled with figure subjects. On the south face:—(1) A male figure (shepherd or St. Joseph); (2) a female figure (? the Blessed Virgin Mary); (3)

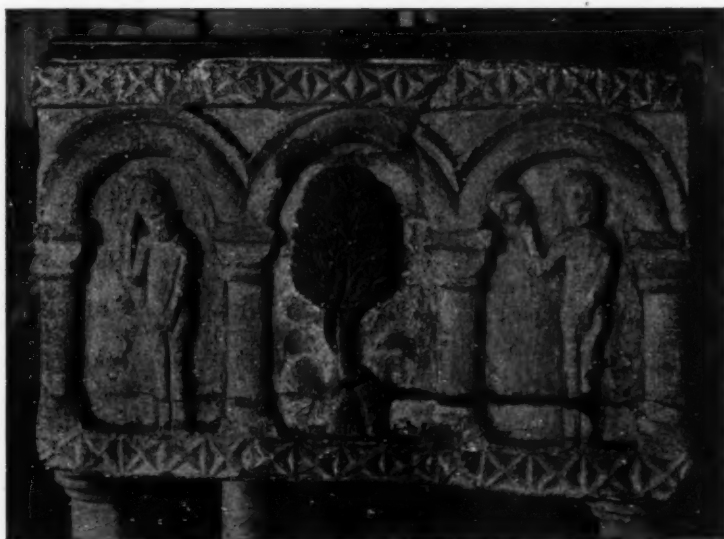


Fig. 3.—Norman Font at Fincham. North face.

the manger and infant Christ, the ox and the ass, the star of Bethlehem. East face:—(1), (2), (3) the three kings; each holds up a gift; these three figures are identical. North face (fig. 3):—(1) Adam; (2) the Tree and Serpent (restored); (3) Eve taking the apple from the serpent's mouth. West face:—(1) A bishop; (2) the baptism of Christ (very singular); (3) an evangelist (?). This font is quite unlike any other I have seen, though it is approached in character by the two fonts at Burnham Deepdale and Warham All Saints' (the latter in the churchyard; that in the church came from Warham S. Mary, and is plain, square Norman).

The Burnham Deepdale font is square, and is divided horizontally on each face into two panels, roughly one-third and two-thirds of the depth. On three sides the lower panel is divided into four parts by a plain, round-headed arcade (without pillars or capitals), thus making twelve spaces, on which are depicted the twelve months, as follows:—North: January, a man drinking; February, a man warming himself; March, a man digging; April, a man training a plant. East (fig. 4): May, a man pruning or budding; June (cannot understand this); July, a man hoeing; August, a man tying up a sheaf. South: September, a man threshing; October, a man grinding corn (or ? brewing); November, man killing a pig; December, four people at a feast. The upper part of these



Fig. 4.—Norman Font at Burnham Deepdale. East face.

three sides is ornamented with a grotesque lion and some very stiff foliage. The west side is entirely covered with arabesques and foliage. At Warham All Saints' was a similar font, which was treated at some time as the font at Ingoldesthorpe by having its corners cut off. It was comparatively recently cast out into the churchyard, and is now part of a rockery, and filled with ferns. I cleared away one side sufficiently to be able to see that it was a reproduction of the Burnham font. It is to be hoped that the Rector will have it cleaned and put back into the church. The photographs will show the extremely interesting character of these fonts far better than any description.

H. BEDFORD PIM.

THE MISERERES IN MINSTER CHURCH, THANET.

THE Church of St. Mary, Minster, in Thanet, is one of the very few in this corner of Kent which has retained its ancient miserere stalls. In this instance, they remain, after the wear and tear of nearly five hundred years, in almost their original condition, and taking the series as a whole, are considered by those competent to judge to be among the best preserved in this country. At the present time they number eighteen, but it is thought that originally there were more. According to the present arrangement, they stand ten on the north and eight on the south side of the chancel—a disposition somewhat at variance with the original one, which was probably a series of nine upon each side, with six (three a side) returned upon the easternmost side of the rood screen fronting the high



Fig. 1.—Miserere at Minster with Horned Head-dresses.
(Photo by Dom. Bernard Brewer, O.S.B.)

or principal altar. In the time of Lewis, the historian of Thanet, they were set in this manner—nine a side—and would seem not to have escaped the general restoration in the early sixties, as several of the old stall-fronts have been converted into bench seats.

The stalls are, as usual, of oak, quaintly carved, the elbows being formed of winged angels wearing coronals, which rise in the front in the shape of a cross. The tracery of the panels and the really fine poppy-heads are splendid examples of the handiwork of the mediæval craftsman. All the subjects are cut from solid heart of oak, the edges of the foliage being still as sharp and clear as upon the day they left the carver's hands. The date usually assigned to this work is the earlier years of the fifteenth century.

The subjects selected for the decoration of the miserere seats are of the usual type, pregnant with dry humour, quaint whimsicalities, and sly cuts at the prevailing order of things.

Taking the north side as our starting-point, we first come to a representation of three ladies plumed out in all the bravery of the curious, and by no means handsome, horned head-dresses beloved by the ladies in the days when the Red and White Rose Kings were battling for the mastery. Beneath the lady whose bust graces the central position a clawed and feathered monster is seen lurking, and around the heads and necks of her two companions serpents are coiled like an aureole, intimating in a language to be understood by all beholders that the demon of pride ever hides under fashionable attire. (Fig. 1.)

The second seat bears a shield charged with the arms—a fess between three mullets or stars—of Nicholas and Eleanor Manston, of Manston Court¹ (Fig. 2.)

The third carries part of the coat-armour—the collared and chained antelope—of the regal House of Lancaster.² The white hart collared and



Fig. 2.—Miserere at Minster with the Manston Arms.

(Photo by Dom. Bernard Brewer, O.S.B.)

chained was the favourite device of the unfortunate King Richard II., who had it painted, amongst other places, in two positions in the Abbey Church of Westminster, *i.e.*, in the little Chapel of St. Erasmus the Benedictine, and in what is now called the "Muniment Room." The carved representation of this subject at Minster is not infrequently interpreted as being a pictorial display of the famous hart of Queen Domneva, Abbess and Foundress of the Convent of Minster, in Thanet, the mother of St. Mildred, which accomplished so marvellous an exploit to the advantage of its mistress. Clumps of foliage adorn the side-pieces.

¹ In the window of St. Lawrence's Church, St. Lawrence, Isle of Thanet, these arms are represented as *Gules*, a fess *ermine*, between three mullets *argent*. (See List of the Gentry of Kent, *temp.* Henry VII. (before 1485), Cotton MSS. (British Museum) Faustina E. ii.)

² A similar device appears upon a misericord at Ludlow.

In the fourth and fifth seats we have again displays of coat-armour. The former holds three shields, the central one carrying the arms (with a crescent for a difference) of Joan Manston, who married Thomas St. Nicholas, of Oare, and, surviving him, was buried (A.D. 1499) in the Manston Chantry, in St. Lawrence's Church, where her brass still adorns the back of the old painted screen of carved oak in the same chantry. The latter or fifth seat holds a shield bearing the badge of John St. Nicholas of Thorne, and Bennett (Benedicta), his wife—*ermine*, a chief quarterly, *or* and *gules*,² the accompaniments, being an angel holding a blank shield on either side.

In the sixth seat we are presented with a variation on the "Folly of Fashion" which we met with on the first. Here, however, we find the fiend complacently seated between the huge horns of the lady of the head-gear, the accompanying bosses bear a lion-faced visage on each



Fig. 3.—Miserere at Minster with the Blaxland Arms.
(Photo by Dom. Bernard Brewer, O.S.B.)

side, the somewhat large display of tongue being interpreted to have a connection with the implement of slander.

In the seventh and eighth we have again specimens of heraldry—the Blaxland arms, two birds, back to back, a fish with its tail in its mouth (an old symbol of eternity), occupying the sides, in the first (fig. 3); and the Lancastrian arms, an angel bearing a blank shield, with a double or Tudor rose (an amalgamation of the roses red and white), decorating the sides, in the second.

The ninth, a simple bracket, said to have been formerly used as a penance seat,³ bears on each side a flower of four petals; and

¹ Planché: *A Corner of Kent*, p. 365.

² See Camden: *Remains concerning Britain*. In the west window of St. Lawrence's Church, there is the addition "in the first quarter an annulet." These seats are probably acknowledgments of benefactions to the church.

³ This may be a modern name, as penance performed in a prominent or set apart place was not infrequent in the last century.

The tenth a spirited representation of a mediæval housewife diligently plying her distaff, accompanied on either hand by her cat and dog. In the sides we have the face of a man evidently of the John Bull tempera-



Fig. 4.—Miserere at Minster with Cherubim bearing sacred monogram.
(Photo by Dom. Bernard Brewer, O.S.B.)

ment—fat, round, and jocund, with a merry twinkle in the eyes which betrays his acquaintance with the good cheer of those days; and opposite to him our old friend, Reynard, the fox, cantering off in full glee with his goosey prize.¹



Fig. 5.—Miserere at Minster with Gagged woman.
(Photo by Dom. Bernard Brewer, O.S.B.)

Crossing to the south side, on the stall nearest to the altar we have before us an evident representation of the head of our Saviour, and upon

¹ A replica of this subject is seen in the Bosses of Canterbury Cloisters, where the woman strikes the fox-thief with her distaff. Other bosses show the hanging of the fox by the geese, and a flock of geese surrounding Master Reynard, mitred and crosiered. See *Archæologia Cantiana*, vol. iii, p. 144, pl. vi.

either side the coarse, low-type heads of the Two Thieves.¹

The next carried the representation of a feathered angel or cherubim bearing on his breast the monogram *i.β.c.* between two monsters or dragon-fish, arranged as symbols of eternity after the fashion of whiting dressed for the table. (Fig. 4.)



Fig 6.—Miserere at Minster with the Convent's Cook.
(Photo by Dom, Bernard Brewer, O.S.B.)

The third, which from its subject has been christened the "Bridled Scold," shows us a woman undergoing the cure of what was then deemed the "Mouth Disease." Nowadays, the affliction has got so bad that, despairing of a cure, we never attempt it; but in those good old days of



Fig. 7.—Miserere at Minster with John Curtis.
(Photo by J. Dinan.)

"Merry England" they attached it forcibly and cured it at least temporarily. Here we see the patient (it is a lady, for it ever was a feminine disorder even from the day when their first sister Eve made the acquaintance of

¹ These two heads were long described even by educated people as the heads of two monks, whose "greedy, coarse vulgarity" was "pourtrayed to a marvel." (!)

the serpent) under the operation. A bit-shaped piece of iron is passed through the mouth as a gag or "brank," another piece being laid flat upon the tongue, literally stood sternly in the way to the fulfilment of its office, the whole being fastened in a cage which covered the head. A bird on each side, having more the resemblance of a goose than the ascribed "dove on its nest," carrying in its mouth a label of peace to signify "that peace reigns now my lady is gagged."¹ (Fig. 5).

The fourth is a picture of the so-called "Convent Cook," a man seated with his cooking utensils—his basting ladle and instrument for placing the bread in the oven—strewn about him. The cast is full of life as he stirs the pot and shouts, in true cockney fashion, with his hand to his mouth, for more seasoning. A couple of fowls of very doubtful breed, laid out upon a dish, occupy the sides of the panel. (Fig. 6).

The fifth stall is that of the vicar, John Curtis, parish priest of Minster



Fig. 8.—Miserere at Minster with Angel playing guitar.
(Photo by Dom. Bernard Brewer, O.S.B.)

from A.D. 1401-1419, during whose tenure of office these stalls were evidently erected. The decoration of the miserere is composed of a central turbaned head of fierce and uninviting aspect—"a Salee rover"—or mayhap an attempt at a portrait of the good vicar, set between two angels clothed in feathers, who carry scrolls round their heads, upon one of which is inscribed the name "Johannes," and upon the other that of "Curteys." (Fig. 7).

For the sixth, "a preacher" with a congregation of (two) "Britons"¹ of extremely wild and ancient aspect, has been provided. To judge from the length, breadth, and extension of their abnormal ears, the discourse must have been one of unsurpassable (to them) eloquence.

In the seventh is represented "Father Time," a curly-headed man, between two circling dragons, symbolizing Eternity; and in

¹ A gagged woman wearing a horned head-dress appears on one of the misereres at Ludlow.

The eighth and last, an angel plays upon a guitar, to the especial delectation of two more "Britons,"¹ possibly more ancient than their *confrères* of the "sixth form" having lions' heads and pigs' snouts, to illustrate, we are told, that as a race they were "bold as lions, but as ignorant as pigs," until they had been charmed by the music of the Gospel dispensed by the aforesaid angel. (Fig. 8.)

H. PHILIBERT FEASEY, O.S.B.

THE INSCRIBED AND SCULPTURED NORMAN TYMPANUM AT HAWKSWORTH, NOTTS.

WE are indebted to the Thoroton Society for the loan of the two blocks here given of the inscribed and sculptured Norman tympanum at Hawksworth, Notts., and to Mr. W. Stevenson, of Hull, for much valuable information supplied in connection with it. As no doubt many of our readers are aware the Thoroton Society was recently formed for the purpose of studying the history and antiquities of Nottinghamshire, one of the few counties in England which presents an almost unworked field to the archæologist. Hawksworth was visited by the Society on the occasion of their inaugural meeting, held on the 1st of June, 1897, and the tympanum is illustrated in the report of the meeting contained in the first volume of their *Transactions*.

The village of Hawksworth is situated three miles north-east of Aslacton railway station on the line from Grantham to Nottingham. The tympanum was formerly over the outer doorway of the north porch of the church, and the lintel-stone, which supported it, was the shaft of a Saxon cross (fig. 1). For some inscrutable reason the tympanum was removed from this position in 1851,

and built into the south wall of the western tower, where it is picturesquely embowered in ivy (fig. 2). The Saxon cross shaft is placed upright in an angle of the buttress of the tower on the west side of the tympanum.

The tympanum at Hawksworth is of interest as presenting a unique combination of a dedicatory inscription with a cross, figure-sculpture, and geometrical ornament. The inscription is in Roman capitals of the



Fig. 1.—Norman Tympanum at Hawksworth, Notts., in its original position.

¹ Rather some kind of allegorical animal, probably lions.

twelfth century and the Latin language. It is in nine horizontal lines, the reading being as follows:—

GAV
TER
VS ET
VXOR EIVS
CECELINA
FECERVNT
FACERE ECMSIAM ISTAM HONORE
DNI NRI ET SCE MARIE VIRGINIS
ET OMNIVM SCORVM DEI SIMVL



Fig. 2.—Norman Tympanum at Hawksworth, Notts., in its present position.

"Walter and his wife Cecelina caused this church to be made in honour of Our Lord and the Blessed Virgin Mary and of All the Saints of God also."

The figure sculpture is no doubt symbolical of the dedication. The cross with the Agnus Dei in a medallion above it to the left, and an angel in a medallion above it to the right indicate our Lord. The Blessed Virgin is the figure with outstretched arms on the right

of the shaft of the cross, and the winged figure on the left of the shaft is emblematical of all the Saints of God.¹

The rosette, star, and wheel patterns filling up the background are characteristic of Norman work of about the middle of the twelfth century.

It has been suggested that the Walter of the inscription is either Walter de Aslacton, or Walter de Eyncourt.

LEADEN HEART-CASE FROM ABBEY DORE.

AMONG many objects of interest that have come to light during the recent repairs at Abbey Dore Church, Herefordshire, is the leaden heart-case here illustrated. It was found in the centre of the presbytery floor, slightly below the level, and about 7 ft. eastward of the existing chancel screen



Fig. 1.—Abbey Dore Church. Leaden heart-case found in the Presbytery.

put up by Viscount Scudamore at the time of his restoration of the presbytery of the abbey church, in 1633-4, as a parish church for the village of Dore. There are three effigies still in the church, one of which is a diminutive effigy of a bishop carved in slight relief on a slab 1 ft. 3 ins. in length, 9 ins. in breadth, tapering slightly at the lower end. The stone is 6 ins. in thickness. The effigy is a good deal worn, but the traces of the mitre, vestments, and drapery of two small angels guarding the pillow on which the head rests can still be made out. On either side of the effigy is a marginal inscription in Lombardic letters: ". . . A : PONTIFICIS : CO . . . PISTE : IOHN." It has been suggested that the inscription

¹ We believe that the reader of a paper before the Society of Antiquaries on the Hawksworth tympanum, gave an entirely different, and probably the erroneous, explanation of the meaning of the sculpture.

when complete was: "SERVA : PONTIFICIS : COR : SANCTUM : XPISTE : JOH(NIS)," and that the effigy represented John de Bretôn (Bishop of Hereford 1269-1275), and covered a heart burial.



Fig. 2.—Abbey Dore Church. Slab with small effigy of a Bishop.

The leaden case recently discovered, although there is unfortunately no mark by which to identify it, may therefore belong to this effigy. It was recently exhibited at a meeting of the Society of Antiquaries, and

the photograph here given has been taken by Mr. Geo. Clinch. As will be seen, it is perfectly plain. Though now a good deal out of shape, it appears to have been circular. Its diameter is about $7\frac{1}{2}$ ins., its height $6\frac{1}{2}$ ins., and the cover, which was found lying near it, overlaps the sides about $2\frac{1}{2}$ ins.

In *The Archaeological Journal*, Vol. xix., pp. 24-31, is a paper on the effigy by Mr. W. S. Walford, F.S.A., and an engraving of it. It is also illustrated in *The Journal of the British Archaeological Association*, Vol. ii., p. 361, and some notes are also given. Both these illustrations differ considerably from the drawing here given, and do not appear to have been drawn to scale. In *Archæologia Cantiana*, Vol. xvi., p. 322-26, is a paper by Canon Scott Robertson on the reliquary of St. Eanswith discovered in Folkestone Church in 1885. Apart from its being ornamented, it bears a remarkable resemblance to the one found at Abbey Dore.

ROLAND W. PAUL.

Notices of New Publications.

"THE KEMP AND KEMPE FAMILIES OF GREAT BRITAIN AND HER COLONIES." By FREDERICK HITCHIN-KEMP (The Leadenhall Press).—This large, handsome volume is a monument to the rare industry of the compiler and of his many friends of the same name. The faults of the book are few, but obvious, and chiefly consist in the absence of any list of contents and list of illustrations. Moreover, as "Kemp" is omitted from the personal index at the end, it is particularly difficult to find out if different members of this widespread family are herein chronicled. The paging, too, of the different sections is not continuous, which introduces another element of confusion. Otherwise, however, there can be little but praise for this important contribution to family and genealogical history. The Kemps may not have been specially noteworthy in the proportion of distinguished individuals, considering their numbers; but there were and still are not a few of eminence or mark among them. Their most distinguished representative in English history was John Kempe, who was for a time the head of both Church and State in the fifteenth century. This young cleric first came into favour through the ability with which he conducted the prosecution of Sir John Oldcastle; he also served Henry V. on various continental embassies. He was consecrated Bishop of Rochester in 1419, translated to Rochester in 1421, and to London in 1422. On the accession of Henry VI. he was promoted to the Archbishopric of York, and shortly afterwards was appointed Chancellor of England. Kempe was created Cardinal by Pope Eugenius IV. in 1439, and became

Archbishop of Canterbury in 1452, but died in the following year. He was certainly one of the leading European statesmen for a quarter of a century, and upheld his position with much dignity. Cardinal Kempe also attained notoriety for the assiduity with which he furthered the interests of those of his own family; his nephew, Thomas Kempe, was Bishop of London from 1448 to 1489, having held the see for thirty-nine years fourscore and four days.

Another celebrity of the family, well known to English antiquaries, was William Kempe, a comic actor of Shakespeare's days, who attracted much attention in 1599 by dancing a Morris dance all the way from London to Norwich. Of this adventure he published an account in 1600, entitled "*Kempe's Nine Daies' Wonder*," which he dedicated to "Mistress Anne Fitton, Mayde of Honour to Queen Elizabeth."

The most important part of the volume is the second section, which deals admirably with the Kemp and Kempe families of Norfolk and Suffolk. Of this family, whose pedigree is carried back to very early days, came Sir Robert Kempe, the first baronet, of Gissing, Flordon, and Antingham, gentleman of the privy chamber to Charles I. The present representative is Sir Kenneth Hagar Kemp, twelfth baronet. The portraits of this section are charming and well executed, as well as the pictures of interesting old buildings, such as Gissing Hall, and Mergate Hall, where Queen Elizabeth tarried in 1578.

In the account of the Kemptes of Essex, who held Spain's Hall from 1300 to 1727, mention is made of the will of John Kempe, of Finchingfield, in 1569, and of his bequest to his "sister Margaret, wife of George Cavendish." It is curious that the author does not state that this George Cavendish was a gentleman of much note, being gentleman usher to Cardinal Wolsey and writer of his life, and brother-in-law to the celebrated Bess of Hardwick.

Coming to more modern days, no detail is too small to escape notice, particularly with regard to the compiler's own branch. Of his great-grandmother, Susannah Maria Siddons, a relative of the great actress, it is chronicled that "she studied under Dr. Jenner, and is believed to have been the first lady to vaccinate her own children."

The very title-page of this elaborate work shows the diversity of occupations and the remarkable success of this prolific family. Mr. Frederick Hitchin-Kemp is there stated to have been assisted in this compilation by Daniel W. Kemp, J.P., of Edinburgh, and John Tabor Kemp, M.A.; while he has been supported by the twelfth Baronet Kemp; by G. Kemp, M.P.; by J. A. Kempe, C.B., Deputy-Chairman of H.M. Customs; by the Rev. Prebendary Kempe, M.A., Chaplain-in-Ordinary; by Charles N. Kempe, of the Admiralty; and by A. B. Kempe, F.R.S., Chancellor of three Dioceses. Last, and certainly not least, it is stated on this title-page that some of the illustrations are contributed by that great artist, Lucy E. Kemp-Welch.

"BRITISH MUSEUM—A GUIDE TO THE ANTIQUITIES OF THE STONE AGE IN THE DEPARTMENT OF BRITISH AND MEDIÆVAL ANTIQUITIES" (Printed by order of the Trustees) will be found most useful to those adventurous spirits who are not afraid to climb the cork-screw staircase leading to the balcony devoted to the Stone Age collection in our National Museum. We also commend its perusal to the fat and lazy man who prefers imbibing his store of knowledge in a comfortable arm-chair in front of a good fire to risking his life in gymnastic performances more suitable to a music-hall than a museum. The only apparent reason why one of the most interesting collections in the Museum should have been skyed in this regrettable manner, is that it was necessary to find space for the Waddesdon Bequest, and so the British section has had to suffer.

The *Guide to the Antiquities of the Stone Age* gives a very clear account of the contents of the different cases, which are arranged in chronological order so as to show the gradual evolution of the implements of stone and bone used by man from his earliest appearance down to the end of the Neolithic period. The ten plates and one hundred and forty-two blocks in the text are well produced and admirably chosen. The portion of the letterpress which is not actually descriptive of the specimens has evidently been conscientiously compiled from the recognised authorities on pre-historic archæology, and consequently no views of striking originality are here put forward. Contrariwise the anonymous author or compiler sits on a fence with Eoliths on one side and Mesoliths on the other, in a way quite worthy of an eminent politician who shall be nameless.

The British Museum authorities appear to look with a benevolent smile on Eoliths and Mesoliths, since they exhibit specimens of them for visitors to smile at also, but they will not commit themselves to a definite opinion one way or the other as to the archæological value of such things. The fantastic term "Eolith," we are informed, is derived from two Greek words, one meaning "dawn," and the other "stone," presumably because stones, like human beings, occasionally feel "a bit chippy" towards sunrise. Judging from the specimens figured, any piece of flint which shows the slightest signs of chipping may appropriately be called an Eolith. The home of the extraordinarily futile race of ape-men who wasted their time in the manufacture of Eoliths appears to have been on the Kent plateau, in the neighbourhood of Ightham. Why these strange creatures should have fooled away their energies in chipping natural nodules of flint in such a way as not in the slightest degree to enhance the value of the pebble as a tool we altogether fail to understand. The ingenious compiler of the *Guide* suggests that—

"The majority of the drift implements (*i.e.* Palæoliths) are clearly something more than the first efforts of an unpractised hand; they show on the contrary signs of a comparatively long development, and it may be fairly argued that their ruder prototypes must exist somewhere."

Agreed; but when our arboreal ancestor was driven out of his

favourite tree by some external cause and compelled, much against his will, to assume the erect attitude, and at the same time to develop a thumb suitable for grasping a tool, he was in all probability living in a warmer climate than the plateau of Kent. The most conclusive proof of the worthlessness of Eoliths is that they are absolutely unsaleable in the auction room or elsewhere. If the authorities of the British Museum are prepared to offer sixpence a-piece for specimens of Eoliths similar to those illustrated in the *Guide*, we will reconsider our views on the subject, but if not, we would suggest that they should be removed from the show-cases and consigned to the oblivion of the drawer in which they keep their exchanges. A group of implements called Mesoliths is supposed to bridge over the gap between Palæoliths and Neoliths. After carefully reading page 77 of the *Guide* we quite fail to discover whether they have any real existence except in the somewhat imaginative brains of certain archæological enthusiasts. By far the most reasonable theory is that as soon as the climatic conditions and the environment generally became entirely changed at the end of the Palæolithic period, the race of men to which such conditions were suitable, either became extinct or followed the reindeer into the Arctic regions. We have not space here to discuss all the pre-historic problems suggested by the *Guide*, and can only express our regret that our philosopher and friend is not in a position to enable us to come to more definite conclusions with regard to them. The portion of the work which deals with the manufacture of flint implements seems to be altogether inadequate. Thanks to the publications of the Smithsonian Institute at Washington, and Mr. Edward Lovett's papers on the gun-flint industry at Brandon, Suffolk, we are familiar with the exact methods adopted by pre-historic man in making flakes, scrapers, arrowheads, etc. In describing the method of chipping flint-flakes from a core on p. 115, it is not explained that the "bulb of percussion" can only be produced by a blow delivered on a point and with the flint placed on an elastic pad of some kind so as to cause the blow to rebound and thus throw off the flake. The flaking instrument used by the Eskimo is of bone; why, therefore, follow Mr. Worthington G. Smith's theory that a stone fabricator was employed? The hafting of flint implements also might have been treated more fully with advantage. The only mistake we notice is calling the slate amulet with Bronze Age ornament upon it from the Casa da Moura shown on fig. 93, an "ornamental stone axe-head, Portugal." It may be pointed out that there is no justification whatever for calling certain perforated pieces of reindeer-horn from La Madelaine shown on figs. 61 and 62 "sceptres," as they are much more likely to have been arrow-straighteners.

The *Guide* has many redeeming points, amongst others a good index. As a parting shot we may observe that the division of pre-historic time into the ages of Stone, Bronze, and Iron, was first suggested by the Danish Archæologists and not by one of the Trustees of the British Museum.

MURRAY'S HANDBOOK FOR IRELAND, sixth edition, revised and edited by JOHN COOKE (Edward Stanford), shows a marked advance on its predecessors. The bulk of the volume has been considerably reduced by the use of thinner paper and the number of maps and plans has been increased, so that it may be doubted whether any further improvement is possible in this respect. The only complaint we have to make is against the index, which is printed in a variety of types that are altogether unnecessary and most irritating to the eye. An index should be easy to read and should enable a word or a place to be found in the text with the least possible expenditure of time and trouble on the part of the reader. As it is, the real purpose of the index is entirely lost sight of, and information about hotels, barbers, photographers, golf-links, rowing-clubs, luggage, workers in marble, churches, bog-oak manufacturers, Turkish baths, lace-dealers, and almost every other subject under the sun, is mixed up higgledy-piggledy with the references in the index. We understand that Mr. Murray is responsible for this extraordinary compilation. The portions which deal with the antiquities (a large number of which the writer of this notice has visited personally) are very well done and have been thoroughly brought up-to-date by Mr. J. Cooke. As far as we have been able to check the descriptions of the various antiquarian remains they appear to have been written with great care, and contain a quite inappreciable proportion of error. Even for those who do not contemplate a tour in Ireland, Murray's *Handbook* will be found most useful for purposes of reference when studying the geographical distribution of the different classes of antiquities in which Ireland is so rich. A plan is given of the earthworks on the Hill of Tara, and it is sad to think what havoc has been made there of late years by the unscientific diggings of the searchers after the Ark of the Covenant. Why does not the Royal Society of Antiquaries of Ireland undertake a proper exploration of the most remarkable ancient site in Ireland?

"HARLYN BAY AND THE DISCOVERIES OF PRE-HISTORIC REMAINS." By R. ASHLINGTON BULLEN, B.A. (Swan, Sonnenschein & Co.).—Early in 1900 some foundation digging for a small house in the beautiful retired bay of Harlyn, near Padstow, brought to light some cists with early human remains. This led to considerable excavations being made on the site, involving the removal of sand-drifts to a great depth. The result has so far been the unearthing of a large number of interments and various remains of man from the Neolithic age downwards to Romano-British days. It is to be hoped that a proper scientific report of these proceedings from some capable pen will eventually be issued. Mr. Bullen's book cannot satisfy any archæologist or intelligent inquirer, for it is compiled on such loose and irregular principles, and apparently aims at including every possible jotting and quotation that seems to him to bear on the subject of pre-historic interments in any part of the globe, or upon

primitive man in general. The reader is actually presented with Pope's lines beginning "Lo, the poor Indian, whose untutored mind." A considerable fuss is made in these pages over "the implements made of slate" found in large numbers at Harlyn. Having examined them on the spot, we have no hesitation in considering them as mere pieces of sea-washed or weather-worn rubble, and in no way the result of human workmanship.

AMONG the pamphlets recently received may be mentioned *Popular History of Preston Guild*, by Tom C. Smith (Alfred Halewood, Preston), a useful summary; and five of the good penny *Hull Museum Publications*, by Mr. Thomas Sheppard, the Curator.

News Items and Comments.

THE CHURCHES OF HAYLING ISLAND.

IN this interesting paper in the last issue of *The Reliquary* the writer introduces the highly-debatable, but always interesting, subject of "low side-windows" and their uses. He refers in particular to a work which, he states, "undoubtedly proves" by "incontestable evidences" that the primary use of these windows was for the exhibition of a light to drive away evil spirits from the resting-places of the dead. Not having had the advantage of perusing this work, I am unable to discuss the reasons which have led up to such emphatic assertions; but I think that most ecclesiologists who have been enticed to the elucidation of this elusive question would hesitate to be quite so dogmatic. "Audi alteram partem" is an excellent maxim, and I would urge its use by a study of two articles on this subject which appeared in Vols. xli. and xlii. of *The Sussex Archaeological Collections* by Mr. P. M. Johnston, where they will find some strong arguments ably adduced to support a different view. This is, in brief, that the main object of these windows was for confessional purposes, in support of which opinion various evidences are brought forward, as the survival of fixtures or their fragments in connection with these windows such as book rests and a seat inside for the priest or friar; in one case, even a desk, a niche for a crucifix, and an aumbry in the window recess; while as regards documentary evidence, there is the valuable letter of Thomas Bedyll to Lord Cromwell: "We think it best that the place wher thes frires have been wont to hire uttward confessions of al commers at certen tymes of the yere be walled up and that use to be foredoen for ever; For that hering of uttward confessions hath been the cause of muche evyl." The mention of the word "friars" in itself is very suggestive, for these low side-windows mostly coincide in date with

the period of the friars' greatest influence upon the community, their advent to the country taking place soon after the obligatory nature of confession was enunciated by the fourth Lateran Council in 1215. On the other hand, low-side windows are practically non-existent in the Norman period, when the belief in evil spirits had certainly no less a hold upon priest and people, but rather a greater, than in later times. In addition, we may further say that the low side-window was in many cases so situated as to negative such a purpose as the exhibition of a light.

The third alternative—or additional—use of these windows was for the ringing of a bell at the elevation of the Host, and on this point we have a piece of documentary evidence of great value. It occurs in the "Constitutions" of Archbishop Peckham, in 1281, and reads as follows:—"In elevatione vero ipsius corporis Domini pulsetur campana in uno latere, ut populares, quibus celebratione missarum non vacat quotidie interesse, ubicunque fuerint, sen in agris sen in domibus, flectant genua."¹ Of course, "in uno latere" does not necessarily mean at a window: it might mean at a door or porch that the bell should be rung; but I think that a window near, if not in, the chancel, as most of these low side-windows were, would be the more suitable and probable place to ring the bell as being near the spot at which the Mass was being celebrated.

W. HENEAGE LEGGE.

ANCIENT SUBTERRANEAN CHAMBERS AT WADDON, NEAR CROYDON.

Excavations for a sewer at Waddon House, near Croydon, in June, 1902, revealed three subterranean chambers cut in a bed of Thanet sand, and partly occupied by sand which had fallen or been washed into them. In each chamber, however, a compact floor was found at about 15 ft. below ground. The chambers were of beehive shape, about 7 ft. high and 12 ft. or less in diameter. Each had its independent entrance opening on the south-south-east side, but no other means of access till the domed roofs were cut open by the sewer trench.

Below the sand which covered the floors of the chambers several cores and chips of green-coated flints were found, with small fragments of imperfectly baked pottery, and larger fragments of Romano-British pottery. These green-coated flints occur at the base of the Thanet beds, whereas the chambers were excavated 10 to 15 ft. above the base; the flints must therefore have been procured lower down, near Waddon Station (where there is an outcrop of the bed in which they occur), and brought up the hill to the chambers. This could not have been done by rain wash or similar agencies.

¹ "Let a bell be rung at one side (of the church) at the elevation of the very body of the Lord, that the people who have not leisure to be present at the daily celebration of mass may bend the knee, wherever they be, whether in the fields or at home."

The small dimensions and the form and plan of the Waddon chambers, the absence of a perpendicular shaft, and their occurrence in sand, differentiate them entirely from the so-called 'dene-holes'; nor have they any feature in common with the 'flint-mines' of Grime's Graves and Cissbury, nor with the beehive-shaped cavities found in the Isle of Purbeck in 1883.¹

On the continent of Europe the most similar chambers are those at Palmella in Portugal, which M. Cartailhac ascribes to sepulchral purposes in the latter end of the Polished Stone Age.² In particular, the flat floors and hemispherical vault-like sides and roofs are common to both; and the thickening of the walls near the doorway—a provision, as M. Cartailhac notes at Palmella, against the special wear and rubbing to which these parts are subject—recurs in two at least of the Waddon chambers. Similar chambers have been noted in Brittany and elsewhere. The subterranean 'beehive tombs' at Mycenæ, also, are identical in plan, though different in dimensions and material.

Bones of *Bos taurus* (*longifrons*?), horse, dog, or wolf, etc., were found in the loose sand in the Waddon chambers, but no human bones; nevertheless, the evidence seems to show that the chambers were primarily sepulchral. Subsequent disturbance, however, is indicated by the later objects found in the loose sand, and by certain rude scratches—possibly mediæval—on the curved roof, variously interpreted by different observers as a bird, an animal, or a boat.

South-east and east of Waddon there are many hut circles which have been attributed to the Neolithic age. They are circular in form, with marks of entrances on the east and on the south-east side, and exhibit general resemblance in dimensions and plan with the Waddon chambers. On the steep side of Cobham Hurst (about three miles south-east of Waddon) traces of similar dwellings are recorded, and may very likely have influenced the design of the sepulchral chambers, as so often happens.

The Waddon discovery, is, therefore, of some importance as evidence for the size, shape, plan, etc., of pre-historic dwellings; the vaulted roofs cut in hard sand, reproducing, in general form, the interlaced boughs, benders, and wicker-work of the ordinary surface hut, and the lateral passage the doorway of the Neolithic dwelling.

The same idea of interment within a house survived during the Bronze Age; but when cremation came into vogue, a miniature copy of the Bronze Age house—the 'hut-urn'—was sufficient repository for the ashes.

The tradition of the circular Neolithic hut was carried on in the Celtic beehive dwellings of Cornwall, Wales, Scotland, Ireland, and Gaul, and probably in the circular buildings of subsequent English architecture. The Bronze Age dwellings, on the other hand, which are reproduced in the 'hut-urns,' may be regarded as the prototypes of the square or angular forms of ecclesiastical and domestic architecture.

GEORGE CLINCH, F.G.S.

¹ *Proc. Geol. Assoc.* viii. 7 (July, 1884), pp. 404-410.

² *Matériaux*, 3 Ser. II. (1885), pp. 1-18; reprinted in Cartailhac's *Les Ages pré-historiques de l'Espagne et du Portugal*.

THE WEST MALLING JUG.
(Reproduced from a photograph by Messrs. Messers & Kidd, by permission of
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